Agency: Commerce, Community and Economic Development

Grants to Municipalities (AS 37.05.315)

Grant Recipient: Northwest Arctic Borough **Federal Tax ID:** 920116661

Project Title: **Project Type:** Remodel, Reconstruction and Upgrades

Northwest Arctic Borough - Northwest Magnet School and Kotzebue High School Residential Program

State Funding Requested: $8,000,000 **House District:** 40 / T
Future Funding May Be Requested

Brief Project Description:

Star of the Northwest Magnet School (STAR) will be a residential comprehensive secondary and post-secondary school that provides academic and vocational/technical courses for students in grades 11 to 14.

Funding Plan:

Total Project Cost:	$17,000,000
Funding Already Secured:	($6,000,000)
FY2012 State Funding Request:	($8,000,000)
Project Deficit:	$3,000,000

Funding Details:

Last year the state funded $12 million for the first phase of the project but the Governor reduced funding to $6 million. Federal and other funding is also being sought.

Detailed Project Description and Justification:

Star of the Northwest Magnet School (STAR) will be a residential comprehensive secondary and post-secondary school that provides academic and vocational/technical courses for students in grades 11 through 14. Students in the school will graduate from high school and complete up to two years of additional academic and/or vocational/technical education leading to an associate of arts degree, and or vocational /technical certifications. The student body will include 100 students in grades 11 and 12 and up to an additional hundred students in grades 13 and 14.

The STAR curriculum, developed and delivered through the collaborative efforts of the Northwest Arctic Borough School District, Alaska Technical Center, and Chukchi College will focus on preparing students for professional careers in education, healthcare, and resource development. Special secondary programs up to one-year in length may be offered to high school students within the Northwest Arctic Borough School District. The structured curriculum will emphasize application of academic and technological concepts resulting in learning and skill development that is practical and relevant rather than theoretical. The integrated curriculum, developed to meet workplace and academic standards, will place high expectations on students and enhance their ability to communicate effectively, think critically, and solve problems. Currently, the district has received a three-year federal grant that allows the NWAB School District to begin the resource development component of the Magnet School Program. Last year the program began in January 2010 and served 15 students who attended classes both at the high school and the Alaska Technical Center. This year the program expanded to 20 students. The students are from Kotzebue and the surrounding villages. This grant affords the school district the opportunity to

Contact Name: Christine Hess
Contact Number: 465-4833

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$8,000,000 Approved

10:24 AM 5/27/2011

slowly phase the program in and work out problems on a smaller scale as they arise allowing for greater success later on.

The Alaska Technical Center was built in 1982 and is one of the facilities utilized in the magnet school program. Since that time it has served thousands of students and provided hundreds of programs covering a wide variety of employment related needs. To ensure its viability in the upcoming years the facility needs significant renovation and additional classroom and shop space as indicated in the construction budget. The building is over 30 years old and the severe Arctic climate has taken its toll on the building and most of the basic systems have reached the end of their useful lives and are due for replacement. The $8 millions is requested for phase II of the project. The existing $27,6000 square foot building will be renovated and upgraded. The upgrades will convert old undersized and dysfunctional shop space into more useable instructional space for the construction trade and resource development programs. Classroom space will be added and remodeled to support adult basic education, health occupations, and basic office space. The shell of the building will be restored with new roofing, exterior siding, and thermal pane windows. The boilers will be replaced with more energy efficient ones. All code compliances issues, which are many will be remedied. The library will be upgraded to reduce noise distraction issues and the technology and distance delivery capabilities will be upgraded. This renovation will significantly expand the options for the people in the region and surrounding areas. The renovations is essential to carry out the mission of the magnet school.

Project Timeline:

Money will be spent over the course of the next several years.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

NWAB School District

Grant Recipient Contact Information:

Name:	Dr. Norm Ek
Title:	Superintendent
Address:	P.O. Box 51
	Kotzebue , Alaska 99752
Phone Number:	442-3472
Email:	NECK@NWARCTIC.ORG

Has this project been through a public review process at the local level and is it a community priority? [X] Yes [ ] No

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Contact Name: Christine Hess
Contact Number: 465-4833

# of The Northwest Magnet School Update

January 2010

Northwest Arctic Borough School District - P.O. Box 51, Kotzebue, AK 99752

Contents

STAR Development Chronology

Date	**Action**
May 2007	Northwest Arctic Borough School Board includes Magnet School as a goal in NWABSD Strategic Plan
September 2007	Magnet School Concept Paper distributed
Fall 2007	Funding options explored
December 2007	Initial requests for to State of Alaska, NANA, Teck for capital construction funds
January to May 2008	Proposal presented to Alaska State Legislature
May 2008	2nd Edition of Star of the Northwest Concept Paper
Fall 2008	Proposal Presented to Alaska Congressional Delegation
March 2009	Expanding Horizons Grant Application to Begin STAR Program
April 2009	Star of Northwest Proposal completed
Summer 2009	Visit with U.S. Department of Agriculture regarding STAR funding options
October 2009	STAR Program Overview
Fall 2009	Visits with Congressional Delegation Star Business Plan Development
February	ISER contracted to conduct Economic Feasibility Study for STAR residential dormitory
	Partnership with University of Alaska Fairbanks to develop STAR Health Curriculum
Spring 2010	Curriculum development underway for all programs

Program Development

Northwest Arctic Borough School District is currently working with the University of Alaska Fairbanks to develop a curriculum for grades 11 though 14 for a variety of Health Care Occupations.

Development of curricula for the educator preparation and resource development programs is currently underway and expected to be completed within the next six months.

Next Steps

1. Seek capitol funding for ATC addition and dormitory construction - Winter/Spring 2010
2. Conduct Economic Feasibility Study - Spring/Summer 2010
3. Upon receipt of capitol funding, move forward with architectural and construction plans
4. Anticipated completion of construction and opening of STAR Magnet School anticipated in August of 2013.

Expanding Horizons

Expanding Horizons is a three-year federal grant that will allow the Northwest Arctic Borough School District to begin the Resource Development component of the Magnet School Program by serving students who attend either Kotzebue High School or another high school within the district.

The program began in January of 2010 and currently serves approximately 15 students who attend classes at Kotzebue High School and the Alaska Technical Center each school day.

Star of The Northwest Magnet School

Program Overview

October 2009

Northwest Arctic Borough School District
P.O. Box 51, Kotzebue, AK 99752

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I. Mission/Vision Statements

(Draft) **Mission**

To prepare Alaskan students for high-paying long-term Alaskan careers

(Draft) **Vision**

Rural teaching, healthcare, and resource development positions are filled by Alaskans who live, work, and remain in rural communities

II. Program Description

Star of the Northwest Magnet School (STAR) will be a residential comprehensive secondary and post-secondary school that provides academic and vocational/technical courses for students in grades 11 through 14 to graduate from high school and complete up to two years of additional academic and/or vocational/technical education leading to an associate of arts degree, and or vocational /technical certifications.

The student body will include 100 students in grades 11 and 12 and up to an additional hundred students in grades 13 and 14.

The STAR curriculum, developed and delivered through the collaborative efforts of the Northwest Arctic Borough School District, Alaska Technical Center, and Chukchi College will focus on preparing students for professional careers in education, healthcare, and resource development. Special secondary programs up to one-year in length may be offered to high school students within the Northwest Arctic Borough School District.

The structured curriculum will emphasize application of academic and technological concepts resulting in learning and skill development that is practical and relevant rather than theoretical. The integrated curriculum, developed to meet workplace and academic standards, will place high expectations on students and enhance their ability to communicate effectively, think critically, and solve problems.

STAR will serve students who:
•Want careers in education, healthcare, or resource development
•Are interested in advanced academic and applied learning opportunities
•Desire a focused hands-on education leading to career/industry certification
•Desire an education tailored to industry and/or university standards
•Are interested in internship opportunities
•Want to earn college credit while still in high school
•Want to attend a larger high school to prepare for a specific career
•Want to attend a smaller high school and participate in a focused program
•Desire living in a residential dormitory setting

What results can students expect?
•Strong academic and vocational/technical curriculum
•Supportive learning environment
•Employment readiness
•Competency-based education
•Work experience/internships
•A curriculum that is relevant to their professional goals
•Improved critical thinking skills
•Employment readiness
•Work skills and customer service understanding

Admission Standards/Student Conduct Expectations
Expectations for student conduct will be consistent with those of existing state-funded residential boarding schools. Admission standards will differ in that enrollment in the school will be limited to students entering the 11th grade and program enrollment will be apportioned equally.

Student Activities
Students in grades 11 and 12 will be enrolled as full-time students at Kotzebue High School and will have an equal opportunity to participate in all school programs and activities.

III. Market Analysis

The Need for STAR
Almost 60% of Alaskan high-school students attend schools in Anchorage, Fairbanks, and Mat-Su school districts. Those students have direct access to career and technical education (CTE) programs in their districts and to post-secondary academic and technical education programs within driving distance.

Of the remaining 16,714 students attending high schools throughout the state, slightly over 14,000 of them attend high schools with 50 students or more. These schools located both on and off the road system typically have the capacity to offer some

advanced academics and limited CTE courses which provides students a realistic opportunity to prepare for further education or entry into the workforce after high-school graduation.

Small High School Realities
For the roughly 2,700 students who attend small high schools with fifty or fewer students, the opportunities to prepare for higher education or entry into the workforce is significantly diminished when compared to students in larger schools. Factors such as school size, remoteness, lack of infrastructure and learning support and access, severely limit the opportunity these students have to get a quality high-school education.

Although some academic courses can be successfully delivered via distance learning programs in-school support for them is very limited. Other courses such as science or CTE courses cannot be delivered because the schools lack the resources and infrastructure to support them. An additional disadvantage for small high schools is that due to small enrollments, teachers are spread thin to cover the basic curriculum and required to teach classes they are not highly qualified for.

The following high-school breakdown by enrollment illustrates the lack of opportunity for students in small rural high schools.

High schools with 50 or fewer students (2008-09 DEED data)

Enrollment	Number of Schools	Total Enrollment
1-10	77	392
11-20	26	387
21-50	56	1890
Totals	**159**	**2,669**

Students who grow up in small rural communities are most likely to remain in those communities. Providing these students an opportunity to an educational program focused specifically on professional careers available in their communities makes sense both economically and culturally.

•Employment Data/Projections

Education Jobs
In small rural communities teaching is among the highest paying careers, yet data from the Alaska Department of Education and Early Development from May 2009 shows that of the 10,151 people holding education certificates to work in Alaska's public school system only 439 are Alaska Native. Furthermore, data from a July 2008 Institute of Social and Economic Research (ISER) Report shows that teachers who graduated from Alaskan universities remained in their longer than teachers who were educated in other states. The report shows that teacher turnover in Alaska's rural districts is higher than anywhere in the U.S. except inner city neighborhoods. Additionally, it sites that reasons

for Alaska's rural teacher turnover include the shortage of good housing, high living costs, difficulties and costs of travel, and limited access to medical services. Other factors include the impacts of darkness, remoteness, and living in a different culture. It is our belief that Alaskan students, especially those who are raised in rural Alaska are able to overcome the obstacles that many teachers in rural Alaska are not. Additionally, data from an earlier ISER study (2000 to 2004) indicated that 50% of Alaska's teachers are imported from elsewhere.

Healthcare Jobs
According to the Alaska Economic Trends publication of January 2009, healthcare is among the fastest growing occupations in Alaska. Projections for health care openings for 2006 to 2016 indicate that Alaska will need an additional 6,000 healthcare and technical employees, 5,000 personal care and service employees, and 3,000 healthcare support employees.

Resource Development Jobs
A report from the Alaska Department of Labor and Workforce Development in January of 2009 indicates that between 2006 and 20016 there will be approximately 9,000 construction and extraction jobs and slightly over 8,000 jobs related to transportation and material moving. STAR will prepare students for many of these jobs.

IV. Social Return on Investment

•Impact on Alaska Native Students
STAR will positively impact educational and employment opportunities for Alaska Native students who comprise the majority enrollment in small off-the-road-system high schools and who represent a disproportionately high drop out rate as compared to other ethnic groups in Alaska. Additionally it will provide outstanding career opportunities in the small rural communities many of these students live in.

•Unique School/Sensible Approach
STAR will be the only rural secondary and postsecondary school in Alaska that targets three high-need career fields and provides direct secondary-postsecondary collaboration among a rural campus of the University of Alaska, a statewide post-secondary technical center, and a local school district. Additionally, its location in Kotzebue, the regional and cultural hub for northwest Alaska, ensures daily jet service, a modern hospital, and a strong community infrastructure to support the school.

STAR's specific program focus provides a targeted approach to addressing long-term employment needs for high-end careers in rural Alaska communities. Furthermore, the approach compliments rather than competes with programs currently being delivered by other residential high schools.

As education delivery costs rise the State of Alaska increases funding to operate small high schools that have a limited capacity to deliver an education that will prepare students for graduation or entry into the workforce or higher education.

- **Long-Term Benefit**

At its full level of enrollment STAR will graduate 50 students from high school with several of their college or CTE courses completed and will graduate 50 or more students from ATC and Chukchi each year. The graduates of STAR will provide a steady stream of qualified employees for Alaska's healthcare, resource development and education workforce for decades.

Program Development

Northwest Arctic Borough School District is currently working with the University of Alaska Fairbanks to develop a curriculum for grades 11 though 14 for a variety of Health Care Occupations.

Development of curricula for the educator preparation and resource development programs is currently underway and expected to be completed within the next six months.

Chukchi Region Workforce Needs Study

Prepared for:

Rural Community and Native Education
University of Alaska Fairbanks

and

Northwest Arctic Borough School District
Kotzebue

McDowell GROUP
Research-Based Consulting
Juneau
Anchorage

January 2010

Chukchi Region Workforce Needs Study

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Prepared by:

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Juneau • Anchorage

January 2010

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Executive Summary

Major Findings

Workforce Needs

This report profiles the Northwest Arctic Borough (NWAB) workforce using employer-provided information and data from the Alaska Department of Labor and Workforce Development (DOLWD) and federal sources. The two kinds of data together provide the basis for designing career-pathways approaches that will meet employer needs. Those needs fall into two broad categories: technical skill sets and work readiness.

Technical Skill Sets

Basic computer skills are important to most employers, including knowledge of common software, peripheral devices, and networking. More advanced IT skills are also valued. The school district would welcome more extensive training of classroom aides, office staff, custodians and cooks. Millwright, mine operations and skilled maintenance training are of special interest to the Red Dog Mine. The mine also has a variety of professional jobs that require technical/engineering education and certification. Maniilaq reports that filling its many healthcare positions is a challenge and also expressed interest in more business and degree programs, IT training, and training in medical billing. Tribal and local governments typically said that more IT, accounting and business classes are needed. Local businesses identified several hard-to-fill positions specific to their industries, including carpentry, plumbing, electrical, heavy equipment operation, and commercial drivers.

Work Readiness

Work readiness is a high priority for employers. Most say they are prepared to train workers who have basic skills and demonstrate energy and enthusiasm. Government and private sector employers both said they need a workforce that understands the importance of attendance, punctuality and the soft skills necessary to be successful at any occupation. Soft skills include communication, language, personal habits, friendliness, and optimism in workers' relationships with customers, supervisors and peers. Employers look to local educational institutions to help provide these work readiness skills.

Available Education and Training

There are two main education and training providers in the NWAB: the Northwest Arctic Borough School District (and its Alaska Technical Center - ATC) and the UAF Chukchi Campus. The study findings suggest that residents of Kotzebue, and to a lesser extent of other communities, have access through these institutions to many of the types of education and training employers are looking for. The main issues are 1) the extent to which curricula and student achievement are aligned with employer needs and 2) the extent to which employers and prospective students know what training is available.

Improving the Match between Local Training and Employer Needs

Though many education and training opportunities may be found in the NWAB, some gaps exist and some areas could be enhanced. Gaps include advanced professional fields such as health (including nurse practitioners) and engineering, as well as more straightforward training such as commercial driver licensing. Computer/IT training must be tailored to real workplace tasks and software, including networking and use of peripheral devices. ATC is considered a good source for focused and useful training for a variety of jobs within NWAB. However, millwright classes were criticized as too short to adequately prepare applicants to work at the mine.

Distance-delivered courses offer education and training that would otherwise be unavailable. However much of the training necessary for resource extraction and trades occupations — plumbing, electrical, carpentry, millwright, etc. — requires hands-on education. Hands-on learning enables students and young adults to become critical thinkers, able to apply not only what they learned, but more importantly, the process of learning, to various situations. Employers said it is expensive for village residents to travel and house themselves in Kotzebue where the classes are offered.

According to employers, the two steps that would do the most to increase local hire are a comprehensive approach to work-readiness and more exposure to real-life employment situations (through job shadowing, internships, workshops, etc.). Drug and alcohol abuse are also a concern. Employers want new workers to understand that these behaviors are not tolerated in the workplace and that many jobs will require ongoing, regular testing.

Recommendations

- **Adopt a system of career clusters/pathways and match it to the occupations identified in this report.** If career pathways models have not already been chosen, then the literature suggests they be identified based on one or more of four basic approaches:[1]

    1. Analysis of student career interests and value systems
    2. Clusters defined in the Classification of Instructional Programs
    3. Clusters based on the Northern Industry Classification system (NAICS) codes
    4. Clusters based on the Standard Occupational Classification system (SOC) codes

    Information in this report is most closely matched to clustering based on SOC codes. Tables 1 and 2 and Appendix 1 show how the NWAB workforce is distributed among those codes. Whatever model is used, training should result in recognized, assessment-based competencies that include soft skills.

- **Review DOLWD's Alaska Career Ladder (http://labor.alaska.gov/research/careerladder/home.htm) online career planning tool and its accompanying link to O *NET (http://online.onetcenter.org/), a national career exploration database.** These tools match occupations and occupational clusters to "real world" employment and earnings data.

[1] *The History of Career Clusters*, Katherine Ruffing, 2006.

- **Consider additional research directed at the needs and preferences of the regional workforce and potential workforce.** The research for this report identified the workforce needs and preferences of employers in the region. In developing training programs, it would, of course, also be useful to understand the career interests and value systems of students and local workers by means of interviews, surveys or other similar types of research directed at them.

- **Incorporate work readiness and soft-skills curricula into all training for high school students along with entry-level and less inexperienced workers.** This is needed to address the number one priority of area employers. Consider expanding residential strategies, which often are better able to address soft skills. Requiring all students to take work readiness assessments such as ACT WorkKeys early in high school allows the career path to start early as well by measuring both foundation and personal work skill. Tying these assessments to an individual graduation plan is a logical way to guide students in thinking beyond high school. By combining assessments with other college readiness data, schools can personalize instruction, academic support and counseling. Every student should understand his or her work-readiness level, what he or she must do to improve, and how to accomplish that improvement by graduation.

  The magnet school being developed in Kotzebue is an excellent opportunity to combine technical training, work readiness and soft-skills development. The school will serve 100 students in grades 11-14 and will specialize in preparing students for employment in the region. As a hub community Kotzebue is an ideal place for a magnet school. Eventually the magnet program will include a dormitory for high school students from the villages. Modeled on Sitka's Mt. Edgecumbe, the dormitory strategy is also similar to that of Yuut Elitnaurviat in Bethel and the Northwestern Alaska Career and Technical Center in Nome.

- **Consider other strategies to address the high priority placed on soft skills in the workplace.** Responses from regional employers support the widely held view that interpersonal skills and good work habits are absolutely key, regardless of the type of employment. The ability to work drug and alcohol free is also critical.

- **Consider expanding the ways in which regional training and education opportunities are advertised and marketed.** Employers do not have a thorough understanding of the types of training currently available in the NWAB. This is especially true of the Chukchi Campus, which does not have a dedicated web page conveying this type of information and critical support links to other organizations, for example.

- **Consider expanding existing opportunities for high school students and graduates to experience real work environments by job-shadowing, internships, hands-on experience, and other means.** These opportunities might be developed in Fairbanks or Anchorage as well as Kotzebue. Many employers said that young residents of the NWAB have unrealistic expectations regarding the work world and need more exposure to it.

- **Consider sponsoring a summit of education leaders and regional employers to exchange ideas and information and to help design and improve workforce education efforts.** This report identifies the types of training most wanted by area employers. However, the research also demonstrated that approaches and curricula for technical training need to be designed to address current industry standards and specific employer needs.

Study Purpose

The purpose of the study was to document the workforce needs and preferences of the Northwest Arctic Borough's major employers and to determine the implications of those employer needs for an effective career pathways approach to local education and training. The project was sponsored by the University of Alaska Chukchi Campus and the Northwest Arctic Borough School District (NWABSD). Both the university and the school district want a more precise understanding of regional employer priorities, both in terms of skills and expertise needed and the number and type of positions. Areas of particular interest are jobs in education, health services, process technology, the sciences and other potentially high-growth industries.

Major Tasks

Over a three-week period, the study team conducted structured interviews with, and requested data from, representatives of 30 companies or organizations that operate in the Chukchi region. Most respondents were able to provide comparable information. Most interviews were with the CEO, council president, city administrator or the senior human resources administrator. Several of the larger organizations also provided organizational charts and/or employee rosters. The study team reviewed the websites of selected employers to better understand their recruiting and training needs.

The team also obtained additional data about employment and earnings in the Northwest Arctic Borough from the DOLWD and the U.S. Census Bureau. This data complements employer perceptions with an objective picture of borough employment by occupation.

Employment in the Northwest Arctic Borough

Interpreting Employment Statistics

DOLWD Statistics

DOLWD reports most employment and earnings figures by quarter, by annual total, and by total number of annual workers. It is important to remember two qualifications when interpreting DOLWD figures. First, employment for most organizations fluctuates throughout the year. Seasonal variation is especially significant in rural areas and northern regions. Second, employment and earnings reports do not differentiate between full-time and part-time employment. Rather, they show the number of individuals (discrete social security numbers) employed for a particular quarter and the wages associated with those individuals. This means that the number of people employed is not synonymous with the number of full-time-equivalent positions, since one position may have been held by multiple individuals over the course of a year or even a quarter. The DOLWD employment and earnings statistics presented here do not include individuals who are self-employed.

Employer Estimates

Later in this report, Table 7 presents employment figures obtained by interviewing 30 major employers in the region. The figures in Table 7 do not represent a rigorous count at a specific point in time. Instead, Table 7 shows the employer's best estimate

Total Employment and Earnings in the Northwest Arctic Borough

The Northwest Arctic Borough (NWAB) population in 2008 was 7,502 (U.S. Census Bureau). According to DOLWD, the size of the available labor force (local residents) in November 2009 was 3,022 and 2,655 of those were employed at that time. The official unemployment rate for the NWAB in November, 2009 was 12.1 percent. The average monthly wage for those in the workforce during the second quarter of 2009 was $4,237.

Table 1 shows the number of people employed in the NWAB during each quarter of 2008. This includes residents of the region and nonresidents who worked in the region. The 2008 Worker Count is the total number of individuals (discrete social security numbers) employed in each occupational category during the year.

Employment figures in Table 1 are summarized according to the U.S. Department of Labor Standard Occupational Classification System (SOC) job categories. The SOC system categorizes nearly 770 occupations into 22 major occupational groups of related positions. In addition to being the organizational format for a variety of government workforce reports, the SOC classifications are the basis for O*NET (a national career exploration database) and DOLWD's Alaska Career Ladder, both of which are described later in this document.

Table 2 shows the 100 occupations with the most NWAB workers. Taken together, tables 1 and 2 provide the best objective data on the types of jobs that offer the greatest employment potential for people in the region. Detail on additional occupations may be found in Appendix 1.

It is important to remember that, in both Table 1 and Table 2, figures for "2008 Worker Count" and "Total Annual Employees" represent all the individuals (residents and nonresidents) who held a position at some time during the year. Those figures are not the same as the total number of jobs because they include turnover.

The total number of jobs in the region for each occupation is best expressed by the totals for individual quarters in Table 1 and in Appendix 1. The quarterly totals show how many individuals were employed in that occupation at some time during that quarter. Some turnover is reflected in the quarterly totals, but it is significantly less than in the annual totals.

Table 1 - 2008 Employment and Total Wages for the Northwest Arctic Borough by SOC Job Categories

SOC Occupational Title	Q 1	Q 2	Q 3	Q 4	2008 Worker Count	Total Wages ($)
Office and Administrative Support Occupations	570	591	642	614	1,050	11,400,802
Construction and Extraction Occupations	345	453	671	549	1,017	15,111,654
Transportation and Material Moving Occupations	262	359	340	277	639	2,812,832
Education, Training and Library Occupations	403	353	313	359	566	185,985
Personal Care and Service Occupations	299	313	298	291	489	677,674
Sales and Related Occupations	177	230	230	226	439	1,704,453
Installation, Maintenance and Repair Occupations	269	295	303	297	422	3,618,429
Building and Grounds Cleaning and Maintenance	174	164	160	157	310	N/D
Management Occupations	204	207	197	198	296	7,091,435
Healthcare Practitioner and Technical Occupations	177	186	204	174	273	521,022
Production Occupations	162	143	158	156	256	2,708,687
Community and Social Service Occupations	146	134	131	135	199	N/D
Food Preparation and Serving Related Occupations	97	86	99	82	150	161,322
Protective Service Occupations	52	62	74	70	110	1,675,674
Healthcare Support Occupations	71	66	68	59	104	N/D
Life, Physical and Social Science Occupations	60	68	72	51	99	545,545
Business and Financial Operations Occupations	54	53	60	63	87	1,055,858
Computer and Mathematical Science Occupations	37	46	53	34	60	N/D
Architecture and Engineering Occupations	24	28	35	30	46	N/D
Arts, Design and Entertainment Sports and Media Occupations	18	19	18	15	27	N/D
Legal Occupations	6	7	11	8	13	N/D
Totals	3,607	3,863	4,137	3,845	6,652	49,271,371

N/D = Not Disclosed. In this and other tables, where wages are not shown in the table, it is because DOLWD has suppressed that data for confidentiality.

Top 100 NWAB Occupations in 2008

Table 2 shows the 100 occupations in the Northwest Arctic Borough with the highest number of employees in 2008. It also shows the total wages associated with those occupations. Occupations are listed in descending order of the number of employees. As in Table 1, the number of employees equals the total number of individuals (discrete social security numbers) employed in each occupation during the year. Where wages are not shown, it is because DOLWD has suppressed that data for confidentiality.

Table 2 – 2008 Northwest Arctic Borough
Employment and Wages by SOC Occupation

Occupation	Total Annual Employees	Total Annual Wages
Construction Laborers	391	5,535,627
Laborers and Freight, Stock, and Material Movers, Hand	348	1,330,944
Teacher Assistants	305	--
Office and Administrative Support Workers, All Other	241	3,124,447
Gaming and Sports Book Writers and Runners	240	398,942
Stock Clerks and Order Fillers	221	1,723,543
Cashiers	195	699,323
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	180	--
Retail Salespersons	178	1,005,130
Operating Engineers and Other Construction Equipment Operators	160	3,733,073
Maintenance and Repair Workers, General	130	3,571,193
Carpenters	125	3,527,946
Maids and Housekeeping Cleaners	101	--
Water and Liquid Waste Treatment Plant and System Operators	93	1,178,070
Millwrights	86	--
Gaming Service Workers, All Other	80	278,733
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	79	--
Cargo and Freight Agents	78	1,256,353
Healthcare Practitioners and Technical Workers, All Other	77	--
Secondary School Teachers, Except Special and Vocational Education	76	--
Elementary School Teachers, Except Special Education	72	--
Mining Machine Operators, All Other	71	--
Cooks, Institution and Cafeteria	70	--
Bookkeeping, Accounting, and Auditing Clerks	68	1,584,285
Truck Drivers, Heavy and TractorTrailer	64	--
Registered Nurses	61	--
Nursing Aides, Orderlies, and Attendants	58	--
Legislators (includes boards and commissions)	54	188,749
Social and Human Service Assistants	54	--
Child Care Workers	54	--
Electricians	49	--
Computer Support Specialists	48	--
Office Clerks, General	46	655,100
General and Operations Managers	44	2,373,106
Child, Family, and School Social Workers	44	--

Earth Drillers, Except Oil and Gas	44	--
Telecommunications Line Installers and Repairers	44	--
Security Guards	43	574,385
Power Plant Operators	42	1,530,616
Reservation and Transportation Ticket Agents and Travel Clerks	41	1,088,173
Mobile Heavy Equipment Mechanics, Except Engines	41	--
Secretaries, Except Legal, Medical, and Executive	40	--
Physicians, Internists, General	36	--
Police and Sheriff's Patrol Officers	35	1,101,290
Executive Secretaries and Administrative Assistants	34	579,694
Helpers -- Carpenters	34	176,050
Chief Executives	33	2,508,825
Mental Health and Substance Abuse Social Workers	33	--
Amusement and Recreation Attendants	32	--
Office and Administrative Support Workers, Supervisors/First Line Managers	32	--
Court, Municipal, and License Clerks	32	435,975
File Clerks	32	--
Education Administrators, Elementary and Secondary	31	--
Teachers and Instructors, all other Multilevel except Postsecondary.	31	--
Gaming Dealers	31	--
Plumbers, Pipefitters, and Steamfitters	31	827,083
Taxi Drivers and Chauffeurs	31	--
Property, Real Estate, and Community Association Managers	30	--
Retail Sales Workers, Supervisors/First Line Managers	29	--
Environmental Science and Protection Technicians, Including Health	27	545,545
Cooks, All Other	27	--
Commercial Pilots	27	998,594
Refuse and Recyclable Material Collectors	27	263,214
Employment, Recruitment, and Placement Specialists	26	--
Bus and Truck Mechanics and Diesel Engine Specialists	26	--
Mechanics, Installers, and Repairers, Supervisors/First Line Managers	25	--
Material Moving Workers, All Other.	25	--
Billing and Posting Clerks and Machine Operators	24	--
Receptionists and Information Clerks	24	283,244
Licensed Practical and Licensed Vocational Nurses	23	521,022
Customer Service Representatives	23	--
Service Station Attendants	23	41,783
Home Health Aides	22	--
Managers, All Other	21	686,621
Helpers Installation, Maintenance, and Repair Workers	21	--
Emergency Medical Technicians and Paramedics	20	--
Correctional Officers and Jailers	20	--
Recreation Workers	20	--
Airline Pilots, Copilots, and Flight Engineers	20	--
Septic Tank Servicers and Sewer Pipe Cleaners	19	--
Geological and Petroleum Technicians	18	--
Food Preparation and Serving Related Workers, All Other	18	--
Baggage Porters and Bellhops	18	--

Financial Managers	17	501,409
Sales and Related Workers, All Other	17	--
Financial, Information and Record Clerks, All Other	17	75,883
Production, Planning, and Expediting Clerks	17	280,099
Production and Operating Workers, Supervisors/First Line Managers	17	--
Human Resources, Training, and Labor Relations Specialists, All Other	16	562,722
Environmental Scientists and Specialists, Including Health	15	--
Chemical Technicians	15	--
Medical and Public Health Social Workers	15	--
Special Education Teachers, Preschool, Kindergarten, and Elementary School	15	--
Dental Assistants	15	--
First Line Supervisors/Managers of Construction Trades and Extraction Workers	15	852,190
Plant and System Operators, All Other	15	--
Motor Vehicle Operators, All Other	15	178,297
Conveyor Operators and Tenders	15	--
Construction Managers	14	557,060
Social and Community Service Managers	14	--

Source: DOLWD

A complete list of NWAB occupations and 2008 worker counts is included in Appendix 1.

NWAB Unemployment Rates

Employment/unemployment rates in the NWAB have stabilized somewhat since the 1990s when unemployment ranged as high as 25 percent and as low as 8 percent.

Table 3 - Northwest Arctic Borough
Official Unemployment Rate 2000 – 2009

	NWAB Labor Force	NWAB Employment	NWAB Unemployment Rate	Alaska Unemployment Rate
2009*	3,022 *	2,655*	12.1%*	8.5%*
2008	1,968	2,622	11.7	6.7
2007	2,972	2,658	10.6	6.2
2006	2,962	2,629	11.2	6.5
2005	3,060	2,697	11.9	6.9
2004	2,894	2,511	13.2	7.4
2003	3,020	2,627	13.0	7.7
2002	3,078	2,735	9.6	7.1
2001	3,021	2,731	9.6	6.2
2000	2,939	2,680	8.8	6.2

*2009 figures are through the month of October

Table 4 - 2008 Employment of Northwest Arctic Borough Residents

	Labor Force	Employment	Unemployment	Unemployment Rate
Jan	3,030	2,689	341	11.30%
Feb	3,021	2,648	373	12.30
Mar	2,998	2,616	382	12.70
Apr	2,872	2,513	359	12.50
May	2,841	2,475	366	12.90
Jun	2,947	2,567	380	12.90
Jul	2,926	2,569	357	12.20
Aug	2,965	2,628	337	11.40
Sep	2,877	2,544	333	11.60
Oct	3,092	2,779	313	10.10
Nov	3,060	2,765	295	9.60
Dec	2,984	2,673	311	10.40
Average	2,968	2,622	346	11.70%

In 2006, according to a 2008 DOLWD publication[2], 295 non-Alaska residents held jobs in the Northwest Arctic Borough that required an AA degree or less and those workers earned approximately $12.9 million. 76 nonresident workers held jobs requiring a BA or higher and those workers earned $4.5 million. Overall nonresident employment is shown in Table 5.

Table 5 - Resident and Nonresident Employment in the Northwest Arctic Borough in 2006

	NWAB Residents	Other AK Residents	Non-residents	% Non-resident
State government	71	11	2	2.4%
Local government	1,181	82	119	8.6
Private sector	1,671	587	395	14.9
Total	2,923	670	516	25.9%

Nonresidents employed in the private sector in most parts of Alaska typically earn lower wages than residents. However, this is not true in the NWAB. There, in 2006, non-Alaska residents represented 14.9 percent of the private sector workforce, but earned $17.4 percent of the private sector wages. This is an indication that non-Alaska residents working in the NWAB obtain a disproportionate share of jobs that require more advanced training and, therefore, pay higher wages.

[2] *Nonresidents Working in Alaska 2006*, Alaska Department of Labor and Workforce Development, 2008.

Largest Employers in the NWAB

Beginning in 2008 federal regulations have prevented DOLWD from releasing employment and earnings information for individual companies. The most recent data is that shown in Table 6.

Table 6 – Average Monthly Employment in 2007 for Larger NWAB Employers

Organization	Average 2007 Employment
Northwest Arctic Borough School	610
Maniilaq Association	536
Teck Cominco Alaska (Red Dog Mine)	405
Kikiktagruk Iñupiat Corporation	79
NANA Management Services	77
Kotzebue City Of	72
Alaska Commercial Company	71
Noatak Lions Club	64
State Government	52
Federal Government	50
Northwest Iñupiat Housing Authority	41
Northwest Arctic Borough	34
Otz Telephone Cooperative	32
Kotzebue Ira Council	31
Bering Air	28
Kivalina City Council	28
Noorvik City Of	26
Selawik City Council	26
Noatak Search And Rescue	24
Harpoon Construction Group	24
Noatak Village Council	23
Selawik Ira Council	21
Native Village Of Kiana	21
Buckland City Council	20
Alaska Airlines	20

Beginning in 2008, DOLWD began releasing tables that place employers into 26 size categories. It is therefore impossible to list precise employment for current employers. However, a comparison of 2007 and 2008 figures suggests the order did not change appreciably. Figures for 2009 are not yet available.

Existing Workforce Development Efforts

NWAB Workforce Training Providers

In addition to the school district, there are two providers of formal workforce training in Kotzebue, the Alaska Technical Center and the UAF Chukchi Campus.

Alaska Technical Center

ATC is a modern, 23,000 square foot facility with a 10,000 square foot, 40 bed dormitory. ATC is operated by the NWABSD and offers four, 9-month courses, employer-designed short courses and adult basic education/GED courses.

University of Alaska Chukchi Campus

Faculty at Chukchi Campus include professors of English and social work along with adjunct instructors in math, Iñupiaq, health, aviation, psychology, nursing and Alaska Native studies. Most of the classes offered are delivered from other University of Alaska campuses through the UAF College of Rural and Community Development's distance delivery system. The Chukchi Campus has indicated that it will also arrange for distance delivery from other institutions when there is demand for a course that UA does not provide. Current or recent classes offered at Chukchi include:

- Accounting Clerk ATC Certificate
- Accounting Technician Certificate
- Applied Accounting A.A.S. Degree
- Construction Trades Technology Certificate
- Aviation (2 ground school courses toward certification)
- Applied Business Management Certificate
- Applied Business A.A.S. Degree
- Business Administration B.B.A. Degree or M.B.A. Degree
- Public Administration M.P.A. Degree
- Early Childhood Education Certificate or A.A.S. Degree
- Child Development and Family Studies B.A. Degree
- Certified Nursing Assistant and Personal Care Attendant ATC Certificate
- Community Health (CHA/P) Certificate or A.A.S. Degree
- Health Care Reimbursement Certificate
- Clinical Assistant Certificate, UAA Allied Health Programs
- Dental Assisting Certificate, UAA Allied Health Programs
- Limited Radiography Certificate, UAA Allied Health Programs
- Pharmacy Technology Certificate, UAA Allied Health Programs
- Phlebotomy (Med Tech) Certificate, UAA Allied Health Programs
- Nursing LPN (Licensed Practical Nurse) Certificate or RN (Registered Nurse) Associates
- Educator: Para-professional Certificate or A.A.S. Degree
- Education B.A. (Teaching Certification) Degree

- Education Post Baccalaureate Licensures
- Rural Human Services Certificate (substance abuse counseling)
- Human Services A.A.S. Degree
- Information Technology Specialist Certificate or A.A.S. Degree
- Native Language (Iñupiaq) Education Certificate or A.A.S. Degree
- Iñupiaq Eskimo B.A. Degree
- Renewable Resources A.A.S. Degree
- Rural Development B.A. or M.A. Degree
- Social Work B.A. Degree
- Tribal Management Certificate or A.A.S. Degree
- Veterinary Science Program Certificate, CRCD-USDA Program
- High Latitude Range Management Certificate, CRCD-USDA Program
- Ethno Botany Certificate, CRCD-USDA Program
- Environmental Science Certificate, CRCD-USDA Program

Vocational Education Electives Offered by NWABSD and Taught at ATC or Chukchi Campus

In order to improve work readiness, ATC follows a daily schedule similar to that of a "real job" for its on-site students. Classes are taught from 8:30 to 4:30 with scheduled breaks, and students punch a time clock.

Classes include:

- Applied Math II
- Building, Industrial Technology Program at ATC
- Business Software I
- Business Software II
- Construction Trades I at ATC
- Desk Top Publishing
- Geology I
- Health Occupations at ATC
- Health Technologies at Chukchi
- Industrial Mine Maintenance at ATC
- Office Occupations at ATC
- Rural Economic Development at Chukchi
- Word Processing

CTE (Career Technical Education) Classes Offered at ATC

Borough residents, high school students and students at the Chukchi campus can take a variety of CTE classes at ATC. CTE is a broad term for education that prepares people for jobs that are based on manual or practical activities. CTE training is typically non-academic and related to a specific trade, occupation or vocation. CTE instructors are certified and credit is earned through the Chukchi campus. For high school students, these courses are offered as electives. Courses are offered pending availability of instructors, but may include:

- Drafting I, II
- Graphic Communications
- Metal Tech
- Office Procedures
- Power Tech
- Principles of Technology
- Small Business Enterprise
- Teaching as a Career
- Technical Writing and Oral Communications
- Welding
- Wood Tech
- Word Processing
- Workplace Basics I

Role of Distance Delivery

In academic year 2008, approximately 44 percent of Chukchi student credit hours were delivered via distance classes. Distance education at the Chukchi Campus includes audio conferences, online and Elluminate Live (E-Live) classes. E-Live classes are web-based and delivered in real time so students and the course instructor are interacting simultaneously from different physical locations.

Distance education allows students in villages around the Northwest Arctic Borough region to take courses that are offered in Kotzebue and elsewhere. The NWABSD facilitates this by scheduling classes at the village high schools and at Kotzebue Middle/High School to begin and end at the same time. The Chukchi Campus works with trained NANA Resource Technicians in every village to support students with advisement, application, financial aid, and technical connectivity to courses.

Many of the distance-delivered classes currently available are relevant to the job classifications sought by local employers. However courses that require hands-on practice, such as plumbing, electrical, carpentry, and other trades, are not as suitable for distance education. Further, interviews indicate that employers are not, by and large, familiar with what classes are offered. As a result, they may not encourage employees to obtain additional training that could be both useful and available. Just as with classroom instruction, it is important for distance education to require attainment of standards, not simply attendance.

Role of Residential Programs

ATC and Chukchi Campus both have residential components. Residential programs have become more and more popular in spite of their cost. This is because they can help address work readiness issues and hands-on instruction better than individual classes for many students. Examples of other residential training programs include Yuut Elitnaurviat in Bethel, Northwestern Alaska Career and Technical Center in Nome, Alaska Vocational Technical Center in Seward and the planned magnet school in Kotzebue.

Residential programs can help impact students before they reach high school as well. Alaska Gateway School District has operated a highly successful summer camp to help middle school students prepare for post-secondary education. Key to the camp's success is the ability to take students out of familiar surroundings and influence the full range of life skills. Residential programs can also make it easier for students to meet local employers and to provide students with first-hand experiences (job shadowing, internships, etc.) in real workplaces. Where extended residential programs threaten outlying schools with a loss of funding based on Average Daily Attendance, intensive one-to-three-week residencies may still be effective.

Some employers interviewed for this study were able to provide rosters of positions. Others provided estimates of employment. In all, the businesses and government agencies interviewed for the study employ approximately 2,100 people, nearly 80 percent of total borough employment. Table 7 shows the approximate employment and primary business for the 30 organizations interviewed for this study.

Table 7 - Employer Estimates of the Number of People They Employed in 2009 within the Northwest Arctic Borough

Organization	Estimated # of NWAB Residents Employed in 2009	Primary Business Activity
NWABSD	600	K-12 Education
Maniilaq	500	Health Care
Red Dog Mine	200	Mining
NW Iñupiat Housing Authority	117	Construction, rental assistance
Alaska Commercial Co	73	Retail grocery store
NANA Lynden	64	Trucking; heavy haul
NANA Regional Corporation Inc.	60	Run NANA administration offices
City of Kotzebue	55	Municipal Services
Kikiktagruk Iñupiat Corp.	50	Native Corporation
KIC Construction	35	Construction
OTZ Telephone Co	35	Telecommunications
Drake Construction	31	Construction
Bering Air	30	Commercial Airline
Native Village of Kotzebue	29	Tribal Government
Alaska Technical Center	27	Workforce Preparation
Northwest Arctic Borough	25	Municipal Services
AK Airlines	23	Commercial Airline
UAF Chukchi Campus	21	Postsecondary Education
City of Noorvik	15	Municipal Services
Ukpeaġvik Iñupiat Corporation (UIC)	15	Construction
Kotzebue Electric Association	15	Electrical Power
Selawik	14	Municipal Services
Buckland City	10	Municipal Services
Noatak	10	Municipal Services
Crowley Petroleum Distribution	10	Fuel Delivery
US Fish & Wildlife	10	Federal Government
Kivalina City Council	9	Municipal Services
Kiana Traditional Council	8	Tribal Government
Kivalina IRA Council	3	Tribal Government
Kotzebue Job Service	2	Job Placement
Total	2,096	

Employment figures in Table 7 are approximate. Industries and individual employers differ in their ability to differentiate between total employment and seasonal employment or between the number of positions in an organizational chart or roster and the positions that are actually filled at any particular time. Another variable is that employment may go up or down as particular projects or programs begin and end. Table 7 contains the best planning data available. Ongoing communication with employers is encouraged, and those interviewed generally indicated a willingness to engage in further discussion about regional training needs.

Overview of the Region's Employers

Larger Employers

Following are brief descriptions of the NWAB's larger year-round employers based on interview results and published materials:

Northwest Arctic Borough School District

The NWABSD serves more than 2,000 children and employs approximately 600 people in Kotzebue and eleven nearby villages, according to interviews for this study. Employees in the fall of 2009 included 158 certified staff (teachers and counselors), 28 senior administrative staff, and 211 classified staff, including 81 classroom aids. Most of the classified staff is hired locally and many speak Iñupiaq. In addition to twelve schools, NWABSD operates the Alaska Technical Center. ATC has a staff of 21, including 5 instructors, 6 administration personnel and dormitory and facilities personnel.

Maniilaq

Maniilaq Association employs approximately 500 people and provides healthcare and social services to 6,000 residents of the borough. The non-profit corporation represents twelve federally-recognized tribes. Maniilaq also coordinates tribal and traditional assistance programs as well as environmental and subsistence protection services. Maniilaq's roster contains 540 positions, and roughly 80 percent are currently filled. Position descriptions include the following job major categories and approximate numbers of positions:

- Administration – 25
- Information services – 30
- Skilled labor – 7
- Finance – 10
- Human resources-related – 23
- VPSO – 6
- Doctors – 16
- Family Services/Daycare/Home care/social service – 172
- Counseling – 69
- Cooks – 6
- Radiology – 5
- Pharmacology – 8
- Laboratory – 8
- Dentists – 17
- Nurses – 41
- Physician Assistants – 2
- Environmental – 3
- Education and Training – 5
- Biomed – 2
- Supervisors - 6

Red Dog Mine

The Red Dog mine is a zinc and lead mine located in the Northwest Arctic Borough. It is the world's largest producer of zinc and has the world's largest known zinc reserves. Red Dog is located on land owned by the NANA Regional Corporation and is operated by the commercial mining company Teck Resources in partnership with NANA. The mine is expected to exhaust its currently permitted ore in 2012. Its parent company, Teck Cominco, has applied for expansion permits that would keep the mine operating until 2031.

Approximately 200 Red Dog employees reside in the NWAB; most are employed as millwrights and miners. The other roughly 300 employees have homes outside the borough. Typically, positions at the mine include 45 mill operators, 90 mill maintenance staff, 36 mine operations staff, 10 warehousing staff, 20 technicians, 95 engineering professionals with various specialties, 12 electrical technicians, 12 administrative staff, 6 clerks, 10 foodservice personnel, 30 housekeepers, and 10 janitorial staff.

NANA Regional Corporation

NANA Regional Corporation supplies services, workers and technology to the Red Dog Mine. NANA and Teck Cominco became partners in the Red Dog project through an agreement that assured environmental protection and economic benefits for the Iñupiat People, who are NANA shareholders. NANA Regional employs 60 residents within the Borough.

NANA Lynden Logistics, LLC

NANA/Lynden Logistics, LLC operates marine cargo, heavy trucking and fuel transport services primarily for the Red Dog Mine. Approximately 64 NANA Lynden employees live in the Borough. Positions include loader operators (4), truck drivers (40), mechanics and maintenance (14), and office staff (3).

Alaska Commercial Company

Alaska Commercial Company is a retail company that provides groceries and general merchandise in stores throughout Alaska. It employs about 73 people in the Borough, mostly in jobs that include store manager, department managers, meat cutters, wrappers, checkers, merchandisers, stockers and clothing sales.

City of Kotzebue

The City of Kotzebue employs about 55 people, primarily in maintenance and repair of facilities, roads and sewers, and in management positions. Departments at the City include:

- Administration
- Adult Center
- Capital Projects
- Finance Department
- Fire Department
- Jail Department
- Police Department
- Public Works
- Refuse/Water Treatment Plant

Kikiktagruk Iñupiat Corporation

KIC, the Kotzebue village corporation, has approximately 50 corporate and support staff plus another 35 employees in their construction business.

Northwest Iñupiat Housing Authority

NW Iñupiat Housing Authority has about 20 full-time and 15 part-time year-round employees. During the 2009 construction season, the housing authority hired roughly 75 additional workers.

Other Employers

Other important employers in the region include local municipal and tribal government, several state and federal agencies, and a variety of businesses.

Local and Tribal Government

Local government employment varies from village to village. Larger villages may have significant staff, but all have similar core administrative functions. Those governments contacted for this study reported the following:

Noorvik employs one financial officer, one city clerk, one acting city administrator, 3 bingo collectors, two pull tab operators, one bingo operator, one bingo finance officer, one water and sewer operator, one landfill operator, one landfill laborer, two water/sewer laborers, one mechanic, and one mechanic helper.

In **Kivalina**, the city employs an administrator, a clerk, a water operations person, a clerk for the washeteria, a bingo clerk and a janitor. The Kivalina IRA Council employs an IRA administrator, a secretary/treasurer and an environmental aide.

The **Kiana Traditional Council** employs one transportation coordinator, one environmental program assistant, five coordinators, two maintenance workers, and three environmental interns.

The **Village of Noatak** employs one administrator, one administrative assistant, one fiscal office, one education coordinator, one ICWA coordinator, one EPA director, one EPA assistant, one janitor, and one utility manager.

The **City of Selawik** employs a city administrator, a financial officer, a city clerk, police officers, an animal control officer, a water plant operator, a lift station attendant, a bingo manager and assistant, and a maintenance person

Buckland City employs a city administrator, a city clerk, a water plant operator, a recreation director, two trash/sewer personnel, a power plant operator, and a janitor.

Other Government Agencies

Among other government agencies, the US Fish & Wildlife Service has perhaps the largest presence in the borough. Its Kotzebue office consists of a maintenance person, a pilot, two biologists, an

administration/budget manager, an education/outreach position, and two management personnel. The Selawik office has a maintenance position and an environmental education position.

Other Local Businesses

One of the larger business segments in Kotzebue is air transportation. Bering Air and Alaska Airlines employ roughly 50 people between them, including counter and cargo personnel, pilots, management and maintenance staff. Era/Frontier and some smaller carriers also have bases in Kotzebue, but were not interviewed for this report.

Many of the other businesses of some size provide technical products or services in Kotzebue or the region. Their staffs typically consist of two or three administrative personnel, office support, maintenance/janitorial, and technical staff with a specific orientation. For example, in addition to the basic business functions just mentioned, OTZ Telephone employs several telephone technicians; Crowley Petroleum employs delivery drivers and a tank farm operator; and Kotzebue Electric Association employs linemen and power plant operators.

Major Themes from Employer Interviews

Following is a summary of the major themes that characterize responses to each of the interview questions. Respondents occasionally brought up the same themes in response to more than one question, and this is reflected in the summaries.

What new kinds of education and training would you most like to see become available within the borough?

Respondents most often said the following:

- GED training
- Drivers' education
- Commercial driving license
- MSHA certifications
- HAZMAT and HAZWOPER classes
- Computer skills
- Information technology
- Boiler technicians,
- Electricians
- Accounting skills
- Carpentry
- Plumbing
- Math skills
- Nursing skills

Employers also suggested courses in resume writing, interviewing, databases, and, especially, writing.

What positions are hardest to fill locally?

Borough employers said administrative and management positions are most difficult to fill. The larger employers also identified instructional aides (NWABSD), technology/IT/networking positions (NWABSD), and licensed positions such as engineers, assayers, and environmental scientists, as well as other skilled, technical positions (Red Dog Mine). The NW Iñupiat Housing Authority said electricians and plumbers are the construction positions that are hardest to fill and NANA Lynden identified maintenance positions.

Why do you think those positions are hard to fill?

In most cases, respondents said that lack of education and training are the main reasons some positions are hard to fill. Low pay and cost of living are also factors for some positions. Exhibit 1 shows comments from individual employers about hard-to-fill positions.

Exhibit 1- Jobs that Employers Say are Hard to Fill Locally

Hardest Jobs to Fill	Reasons Why
Electricians and plumbers (4 positions each)	Need training for licensing
Biologists , environmental educator	Requires BA or Masters degree
Airport ramp service	Culture – attendance is a problem
Higher education jobs, health positions	Local candidates don't have required education
Police, AVAC	Don't know-
Adjunct and part-time instructors.	Gap between pay and cost of living
"Highly qualified" instructional aides, special education teachers, technology/IT/networks	The aides don't have the educational background.
Mechanics, ticket counter personnel	Mechanics need certification
Reception, administrative assistants, middle management	Job skills
All positions are hard to fill	Management positions normally hired outside of Alaska because of training & experience needed
Finance director, social services director, realty director	Because of the education, non-profit and governmental experience. Also gap between pay and cost of living
Technical and managerial. Jobs that require technical expertise or college degrees	Absence of skills and education/training. Also willingness to work in a remote location
Washeteria clerk	Seasonal work pays better
No problems filling positions except occasionally for a mechanic	N/A
Network technicians & administrators (4 positions)	Need a high level of expertise
High-level jobs, hospital contracts	Lack of experience for high-level work. Felons can't be hired for hospital work
Not much turnover	N/A
Administrators	Low pay, lack of education/training
City administrator	No one is willing to do it. Need experience and, in one case, water treatment expertise
Professionals such as engineers, assayers, environmental sciences, surveyors, technical skilled	Lack of education and lack of exposure of workforce to some careers
Grants manager and environmental coordinator	Not enough funding to train people
Firefighter, EMT, police, finance director	Gap between pay and cost of living
Maintenance	People aren't interested
Management positions (about 5)	Lack of education

What types of positions experience the highest turnover at your organization? Why?

Instructional aides, secretaries, custodians, cooks (NWABSD), mill and mine operators (Red Dog) were the jobs with the highest turnover. Respondents cited attendance, punctuality, lack of work readiness/soft skills, lack of preparation for the rigors of an industrial environment, and inability to pass drug tests as reasons for turnover.

For new hires in general, what kinds of training, skills, degrees, or certifications does your company most often look for and/or value?

Technological, computer and networking skills were the most often mentioned skill sets. The Red Dog Mine looks for engineering degrees. Industry, businesses and governments sought new hires with driver's licenses and commercial drivers licenses. Also of interest to employers were high school diplomas, college degrees, drug/alcohol-free workers and work-readiness skills. Respondents from tribal governments and villages said general on-the-job experience was something they look for. ***See Appendix 2 for more detail.***

Is there a program that has worked especially well at preparing people to work for your organization?

Many respondents said the Alaska Technical Center has done a good job of preparing workers, especially for municipal jobs, construction, maintenance, plumbing and boiler maintenance. Respondents from the Red Dog Mine pointed to the ATC's millwright courses as a step in the right direction. They said participants in that program have shown initiative but that a longer, more comprehensive preparation was needed. Some businesses mentioned that new hires that had previous experience with NANA, Maniilaq or the Red Dog Mine were better prepared to work than most job candidates as a result of the training and structure they had been exposed to at those large employers.

When you think about the training and education that is available now in the borough, what types are most important for preparing people to work at your organization?

Respondents most often said office skills, technological/computer training, and work readiness skills were most important. Drivers' licenses, a high school diploma and trade skills (mechanics, carpentry, heavy equipment operation, plumbing, electrician) were also cited. Government employers and businesses alike want potential new hires to have gained real world experience during their education. ***See Appendix 3 for more detail.***

Is there anything you would like to see improved or changed in the education or training programs that are currently available in the borough through...

The NWASD?

Many of the larger employers said students from the high school lack real world experience and that the NWASBD was too preoccupied with high-stakes testing. Typical comments from larger area employers include:

- "Students need skills in things they are really going to do."
- "They are prepared for college but not for local work, they are not well rounded"

- "Not enough time spent preparing for life out of high school, career awareness"
- "Kids need to have more exposure than they currently get (to technical mining skills)"
- "Partnerships with construction trades and technology (are needed)"

The Chukchi Campus?

There was little consensus about the role of the Chukchi campus, in part because many respondents did not know specifically what the college offers. Two respondents — one a tribal representative, the other a small-business owner — thought the campus could work more closely with the Red Dog Mine and another speculated that the college might increase its outreach to people in villages.

The Alaska Technical Center?

A representative of the Red Dog Mine suggested that the Alaska Technical Center consider longer, more in-depth industrial, mechanical, millwright, heavy equipment and electrical maintenance courses, and possibly a larger shop space.

In order for more people from the region to work at your organization, what specific education, training, or certifications would you tell potential job candidates to focus on...

In high school?

The most common suggestions were:

- Work readiness (punctuality, attendance, soft skills)
- Office occupations
- Oral and written communication
- Computer skills
- Math and accounting skills
- Obtaining a diploma

In college?

- Science and engineering (for mining careers)
- Business writing, accounting and math (especially for businesses and government offices).

In vocational programs?

The Red Dog Mine suggested more extensive millwright training. Construction firms and local and tribal governments most often said:

- Heavy equipment operation
- Electrical and plumbing
- General maintenance
- Computer skills.

See Appendix 4 for more detail.

What new kinds of education and training would you most like to see become available within the borough?

City councils and tribal governments would like to see more GED, drivers' and CDL licenses, soft skills and work readiness skills. Education institutions wanted computer/technical, networking, computer repair/installation and work readiness. Construction businesses mentioned hands-on training for boiler technicians, plumbers, electricians and carpenters.

See Appendix 5 for more detail.

Does your organization provide training internally for...

New employees?

All NWAB employers provide on-the-job training; many have an orientation for new hires. The NWABSD provides in-service training for both paraprofessionals and teachers but not for classified staff. Alaska Airlines trains all its new employees, as does Maniilaq, NANA and Ukpeagvik Iñupiat Corporation. The Red Dog Mine trains extensively as well and said that the Alaska Department of Labor has recognized their training as a model. "We have six times the industry average of internal training".

Employees who want to advance within the organization?

The majority of interviewees said their organizations provide internal training for employees based on employer needs. Most employers focus training on employees who have worked for a certain length of time and are motivated to advance. NANA, Alaska Commercial Company, Maniilaq and Red Dog Mine promote advanced training. The BIA provides training to tribal councils through the Rural Providers Conference in Anchorage.

Does your organization offer any other training benefits, such as...

Counseling and information for workers about outside training opportunities?

Most respondents said that counseling and information for workers about outside training opportunities was not available. NANA and Maniilaq are exceptions.

Time off for employees who attend courses? If 'yes,' is it paid or unpaid?

The majority of respondents provide time off for employees who attend courses. Employees were paid salary or hourly during their education/training.

Tuition reimbursement or salary for employees to attend courses at a school or college?

Most Borough employers provide tuition reimbursement or salary if their employees attend courses relevant to their jobs.

Any other types of training benefits?

Few respondents mentioned other types of training benefits, some offer scholarship money.

How do you think your workforce needs will change over the next 5 years?

Perspectives on future workforce needs varied depending on the respondent. Knowledge of technology was the most common theme. A few employers worried that the cost of fuel and cost of living in general would lead to an even higher turnover rate in professional (including clinical and medical) positions within the next several years.

Work Readiness and "Soft Skills"

Employers said work readiness and soft skills are among the most important preparations a worker could obtain through education and training. In the NWAB and in other studies around the state, McDowell Group has repeated heard from employers that too many job seekers do not understand the basic demands of employment. Problems with punctuality, attendance, and organization, and lack of "soft skills," such as social graces, communication, language, personal habits, friendliness, and optimism, were mentioned by nearly half of the interviewees as contributing factors in high turnover rates for NWAB workers. As a result, employers look for these soft skills in new job candidates. Basic academic skills, such as math, reading, computer skills, and information retrieval skills are also critical.

Drugs and Alcohol

Several respondents said new local employees sometimes did not seem to understand that drug and alcohol abuse is not tolerated by most employers, and that random testing is not only common, but necessary for many types of employment. A few respondents voiced the opinion that random testing by the area's larger employees has resulted in fewer local applicants and less local hiring.

Appendix 1 – Employment in the NWAB by Occupation, 2008

OCCUPATIONAL TITLE	2008 Q 1	2008 Q 2	2008 Q 3	2008 Q 4	WORKER COUNT 2008	TOTAL WAGES
Chief Executives	28	27	28	29	33	2,508,825
General and Operations Managers	33	36	34	32	44	2,373,106
Legislators	39	35	35	40	54	188,749
Sales Managers	0	0	0	4	4	--
Administrative Services Manager	5	5	4	4	8	275,664
Computer and Information Systems Managers	1	1	2	2	2	--
Financial Managers	11	10	12	9	17	501,409
Human Resources Managers, All Other	2	2	2	1	2	--
Industrial Production Managers	2	1	1	1	2	--
Purchasing Managers	4	4	4	4	4	--
Transportation, Storage, and Distribution Managers	0	0	1	1	1	--
Farm, Ranch, and Other Agricultural Managers	0	1	0	0	1	--
Construction Managers	10	7	6	6	14	557,060
Education Administrators, Elementary and Secondary	25	25	25	25	31	--
Education Administration, postsecondary	1	1	1	1	1	--
Education Administration, All Other	1	0	0	0	1	--
Engineering Managers	2	2	2	2	2	--
Food Service Managers	2	2	2	2	2	--
Gaming Managers	1	1	2	1	3	--
Medical and Health Service Managers	2	0	1	1	3	--
Natural Sciences Managers	1	1	1	1	2	--
Property, Real Estate, and Community Association Managers	15	24	10	10	30	--
Social and Community Service Managers	7	8	8	10	14	--
Managers, All Other	12	14	16	12	21	686,621
Wholesale and Retail Buyers, Except Farm Products	3	3	3	3	3	--
Purchasing Agents, Except Wholesale, Retail, and Farm Products	2	2	2	2	2	--
Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	3	3	2	2	3	--
Employment, Recruitment, and Placement Specialists	15	16	19	21	26	--
Training and Development Specialists	1	2	3	3	4	--
Human Resources, Training, and Labor Relations Specialists, All Other	9	10	12	9	16	562,722
Management Analysts	0	0	0	7	7	--
Meeting and Convention Planners	0	0	0	1	1	--
Business Operations Specialists, All Other	4	5	6	5	6	--
Accountants and Auditors	10	10	10	9	11	493,136
Appraisers and Assessors of Real Estate	6	1	2	0	7	--
Financial Specialists, All Other	1	1	1	1	1	--
Computer Support Specialists	27	37	43	25	48	--
Database Administrators	2	1	0	0	2	--
Network and Computer Systems Administrators	8	8	8	8	8	--
Computer Specialists, All Other	0	0	2	1	2	--
Surveyors	4	4	6	5	6	--
Biomedical Engineers	0	0	1	1	1	--
Health and Safety Engineers, Except Mining	0	1	1	0	1	--

Safety Engineers and Inspectors						
Industrial Engineers	2	2	3	2	3	--
Materials Engineers	9	8	8	8	12	--
Mechanical Engineers	2	1	1	3	4	--
Mining and Geological Engineers, Including Mining Safety Engineers	5	10	11	9	14	--
Engineers, All Other	1	1	0	0	1	--
Engineering Technicians, Except Drafters, All Other	1	1	3	1	3	--
Surveying and Mapping Technicians	0	0	1	1	1	--
Zoologists and Wildlife Biologists	2	2	2	2	2	--
Environmental Scientists and Specialists, Including Health	11	13	13	14	15	--
Geoscientists, Except Hydrologists and Geographers	4	4	4	6	6	--
Survey Researchers	1	2	1	1	2	--
Urban and Regional Planners	3	3	5	4	6	--
Biological Technicians	1	3	7	0	7	--
Chemical Technicians	14	12	11	10	15	--
Geological and Petroleum Technicians	2	14	14	2	18	--
Social Science Research Assistants	0	1	1	0	1	--
Environmental Science and Protection Technicians, Including Health	22	14	14	12	27	545,545
Substance Abuse and Behavioral Counselors	12	8	7	4	13	--
Educational, Vocational, and School Counselors	7	7	7	6	8	--
Mental Health Counselors	8	8	7	8	9	--
Counselors, All Other	10	9	9	8	14	--
Child, Family, and School Social Workers	31	33	30	32	44	--
Medical and Public Health Social Workers	12	11	11	11	15	--
Mental Health and Substance Abuse Social Workers	23	20	21	24	33	--
Social Workers, All Other	2	2	2	2	2	--
Probation Officers and Correctional Specialists	3	3	4	3	4	--
Social and Human Service Assistants	36	32	32	35	54	--
Community and Social Service Specialists	2	1	1	2	3	--
Lawyers	4	5	7	4	8	--
Arbitrators, Mediators, and Conciliators	0	0	1	1	1	--
Judges, Magistrate Judges, and Magistrates	0	0	0	1	1	--
Paralegals and Legal Assistants	1	1	1	1	1	--
Law Clerks	1	1	2	1	2	--
Business Teachers, Postsecondary	3	1	0	1	3	--
Chemistry Teachers, Postsecondary	2	3	0	1	3	--
Social Work Teachers, Postsecondary	0	1	1	1	1	--
English Language and Literature Teachers, Postsecondary	1	1	1	1	1	--
Vocational Education Teachers, Postsecondary	0	0	1	0	1	--
Postsecondary Teachers, All Other	7	5	7	7	8	--
Kindergarten Teachers, Except Special Education	4	4	3	3	4	--
Elementary School Teachers, Except Special Education	38	37	59	54	72	--
Secondary School Teachers, Except Special and Vocational Education	63	64	57	57	76	--
Vocational Education Teachers, Secondary School	1	1	1	1	1	--
Special Education Teachers, Preschool, Kindergarten, and Elementary School	12	12	11	11	15	--
Special Education Teachers, Middle School	9	9	10	10	14	--
Special Education Teachers, Secondary School	2	2	2	2	2	--
Adult Literacy, Remedial Education, and GED Teachers and Instructors	5	5	3	5	7	--
Teachers and Instructors, all other Multilevel except Postsecondary.	31	31	26	26	31	--

Librarians	7	5	4	4	7	--
Library Technicians	1	1	1	0	2	--
Instructional Coordinators	4	6	5	6	8	185,985
Teacher Assistants	209	163	119	167	305	--
Education, Training, and Library Workers, All Other	4	2	2	2	5	--
Producers and Directors	2	2	1	2	2	--
Dancers	1	0	0	0	1	--
Radio and Television Announcers	3	6	6	4	6	--
Public Relations Specialists	1	1	3	1	3	--
Technical Writers	8	6	6	7	11	--
Writers and Authors	1	1	0	0	1	--
Interpreters and Translators	1	1	1	0	1	--
Audio and Video Equipment Technicians	0	1	0	0	1	--
Broadcast Technicians	1	1	1	1	1	--
Chiropractors	1	1	1	1	1	--
Dentists, General	3	5	5	5	6	--
Dietitians and Nutritionists	1	1	1	1	1	--
Pharmacists	2	0	1	0	3	--
Family and General Practitioners	1	1	1	1	1	--
Physicians, Internists, General	25	24	28	25	36	--
Registered Nurses	36	40	44	33	61	--
Physical Therapists	1	1	3	0	3	--
Speech Language Pathologists	1	1	1	1	1	--
Medical and Clinical Laboratory Technologists	1	0	1	1	2	--
Medical and Clinical Laboratory Technicians	2	3	3	3	4	--
Radiologic Technologists and Technicians	4	4	4	4	6	--
Emergency Medical Technicians and Paramedics	17	18	18	14	20	--
Pharmacy Technicians	6	6	7	4	10	--
Licensed Practical and Licensed Vocational Nurses	12	12	12	13	23	521,022
Medical Records and Health Information Technicians	7	7	6	7	10	--
Occupational Health and Safety Specialists	7	7	6	6	8	--
Healthcare Practitioners and Technical Workers, All Other	50	55	62	55	77	--
Home Health Aides	16	14	9	11	22	--
Nursing Aides, Orderlies, and Attendants	35	33	40	33	58	--
Massage Therapists	6	6	5	5	7	--
Dental Assistants	12	12	13	9	15	--
Healthcare Support Workers, All Other	2	1	1	1	2	--
First Line Supervisors/Managers of Correctional Officers	1	1	1	1	1	--
First Line Supervisors/Managers of Police and Detectives	2	2	2	2	2	--
First Line Supervisors/Managers of Fire Fighting and Prevention Workers	2	1	1	1	2	--
Fire Fighters	2	3	3	3	3	--
Correctional Officers and Jailers	10	9	15	12	20	--
Police and Sheriff's Patrol Officers	17	18	25	26	35	1,101,290
Animal Control Workers	1	1	1	1	1	--
Security Guards	15	25	26	24	43	574,385
Protective Service Workers, All Other	2	2	0	0	3	--
First Line Supervisors/Managers of Food Preparation and Serving Workers	0	0	1	1	1	--
Cooks, Institution and Cafeteria	52	39	35	37	70	--
Cooks, Private Household	0	1	1	1	1	--
Cooks, Restaurant	9	9	11	8	14	161,322
Cooks, All Other	15	16	25	21	27	--
Food Preparation Workers	6	7	7	5	13	--
Waiters and Waitresses	2	2	2	1	2	--
Dining Room and Cafeteria Attendants and	1	1	3	1	3	--

Bartender Helpers						
Dishwashers	1	1	1	1	1	--
Food Preparation and Serving Related Workers, All Other	11	10	13	6	18	--
Housekeeping and Janitorial Workers, Supervisors/First Line Managers	3	3	2	2	3	--
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	100	97	78	94	180	--
Maids and Housekeeping Cleaners	67	55	60	52	101	--
Building Cleaning Workers, All Other	0	0	0	2	2	--
Landscaping and Groundskeeping Workers	0	0	14	1	14	--
Grounds Maintenance Workers, All Other	4	9	6	6	10	--
Gaming Supervisors	3	1	4	0	6	--
Gaming Dealers	10	17	13	4	31	--
Gaming and Sports Book Writers and Runners	171	176	176	170	240	398,942
Gaming Service Workers, All Other	45	43	34	44	80	278,733
Amusement and Recreation Attendants	7	13	8	13	32	--
Entertainment Attendants and Related Workers, All Other	3	3	2	3	4	--
Baggage Porters and Bellhops	16	17	17	14	18	--
Tour Guides and Escorts	0	0	0	3	3	--
Child Care Workers	31	36	33	30	54	--
Personal and Home Care Aides	0	1	1	1	1	--
Recreation Workers	13	6	10	9	20	--
Retail Sales Workers, Supervisors/First Line Managers	16	19	21	20	29	--
Cashiers	81	95	102	106	195	699,323
Gaming Change Persons and Booth Cashiers	10	9	10	10	12	--
Counter and Rental Clerks	5	2	1	2	6	--
Retail Salespersons	53	96	86	77	178	1,005,130
Sales Representatives, Services, All Other	0	0	1	1	1	--
Real Estate Sales Agents	1	0	0	0	1	--
Sales and Related Workers, All Other	11	9	9	10	17	--
Office and Administrative Support Workers, Supervisors/First Line Managers	21	20	19	18	32	--
Bill and Account Collectors	8	6	5	8	8	--
Billing and Posting Clerks and Machine Operators	16	15	18	17	24	--
Bookkeeping, Accounting, and Auditing Clerks	44	49	45	43	68	1,584,285
Gaming Cage Workers	0	1	1	1	1	--
Payroll and Timekeeping Clerks	6	5	5	6	7	314,007
Procurement Clerks	6	6	6	6	6	--
Tellers	6	10	6	8	13	--
Court, Municipal, and License Clerks	17	15	20	16	32	435,975
Customer Service Representatives	12	11	12	17	23	--
Eligibility Interviewers, Government Programs	4	4	4	3	4	--
File Clerks	25	24	24	18	32	--
Hotel, Motel, and Resort Desk Clerks	3	3	7	4	7	--
Library Assistants, Clerical	1	3	4	3	4	--
Human Resources Assistants, Except Payroll and Timekeeping	10	10	8	7	11	--
Receptionists and Information Clerks	13	10	11	12	24	283,244
Reservation and Transportation Ticket Agents and Travel Clerks	30	28	31	29	41	1,088,173
Information and Record Clerks, All Other	3	4	5	5	5	--
Election Workers	0	0	1	1	2	--
Financial, Information and Record Clerks, All Other	4	9	4	5	17	75,883
Cargo and Freight Agents	59	51	53	53	78	1,256,353
Meter Readers, Utilities	1	2	2	3	5	--
Production, Planning, and Expediting Clerks	7	12	7	6	17	280,099
Shipping, Receiving, and Traffic Clerks	0	1	1	1	1	--
Stock Clerks and Order Fillers	94	107	107	107	221	1,723,543

Weighers, Measurers, Checkers, and Samplers, Recordkeeping	0	0	0	1	1	--
Executive Secretaries and Administrative Assistants	17	20	23	15	34	579,694
Legal Secretaries	4	4	5	5	5	--
Secretaries, Except Legal, Medical, and Executive	35	35	36	32	40	--
Office Clerks, General	19	30	25	21	46	655,100
Office and Administrative Support Workers, All Other	105	96	147	143	241	3,124,447
First Line Supervisors/Managers of Construction Trades and Extraction Workers	6	8	10	11	15	852,190
Boilermakers	0	0	2	3	3	--
Carpenters	41	44	96	66	125	3,527,946
Floor Layers, Except Carpet, Wood, and Hard Tiles	0	0	0	1	1	--
Cement Masons and Concrete Finishers	3	0	0	0	3	--
Construction Laborers	87	153	252	200	391	5,535,627
Operating Engineers and Other Construction Equipment Operators	50	70	108	85	160	3,733,073
Drywall and Ceiling Tile Installers	0	0	2	2	4	--
Electricians	29	29	30	32	49	--
Insulation Workers, Mechanical	3	3	2	2	3	--
Plumbers, Pipefitters, and Steamfitters	13	17	17	21	31	827,083
Reinforcing Iron and Rebar Workers	0	3	3	2	3	--
Structural Iron and Steel Workers	4	9	7	4	12	459,685
Helpers -- Carpenters	16	14	21	17	34	176,050
Helpers -- Electricians	0	2	3	2	6	--
Helpers, Construction Trades, All Other	4	2	3	5	9	--
Construction and Building Inspectors	1	1	1	1	1	--
Fence Erectors	0	0	1	1	1	--
Highway Maintenance Workers	0	0	1	0	1	--
Septic Tank Servicers and Sewer Pipe Cleaners	1	7	19	15	19	--
Construction and Related Workers, All Other	6	6	9	8	13	--
Rotary Drill Operators, Oil and Gas	0	1	2	0	2	--
Earth Drillers, Except Oil and Gas	13	22	28	12	44	--
Explosives Workers, Ordnance Handling Experts, and Blasters	10	10	10	10	12	--
Mining Machine Operators, All Other	58	50	41	48	71	--
Roustabouts, Oil and Gas	0	0	0	1	1	--
Helpers -- Extraction Workers	0	2	3	0	3	--
Mechanics, Installers, and Repairers, Supervisors/First Line Managers	22	22	22	24	25	--
Radio Mechanics	1	1	0	0	1	--
Telecommunications Equipment Installers and Repairers, Except Line Installers	8	7	8	8	10	--
Electrical and Electronics Repairers, Commercial and Industrial Equipment	1	1	1	1	1	--
Aircraft Mechanics and Service Technicians	2	2	3	5	5	--
Automotive Service Technicians and Mechanics	3	5	4	7	14	47,236
Bus and Truck Mechanics and Diesel Engine Specialists	21	20	19	19	26	--
Mobile Heavy Equipment Mechanics, Except Engines	31	28	33	36	41	--
Industrial Machinery Mechanics	1	1	1	1	1	--
Maintenance and Repair Workers, General	80	94	92	80	130	3,571,193
Maintenance Workers, Machinery	1	3	4	4	4	--
Millwrights	68	60	66	70	86	--
Electrical Powerline Installers and Repairers	2	2	2	2	2	--
Telecommunications Line Installers and Repairers	26	29	38	24	44	--
Coin, Vending, and Amusement Machine Servicers and Repairers	0	1	0	0	1	--

Riggers	0	7	3	3	8	--
Helpers Installation, Maintenance, and Repair Workers	2	11	6	12	21	--
Installation, Maintenance, and Repair Workers, All Other	0	1	1	0	1	--
Electrical and Electronic Equipment Mechanics, Installation and Repairers, All other	0	0	0	1	1	--
Production and Operating Workers, Supervisors/First Line Managers	12	13	13	13	17	--
Butchers and Meat Cutters	1	1	0	0	1	--
Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	0	1	1	0	1	--
Welders, Cutters, Solderers, and Brazers	3	5	2	3	7	--
Power Plant Operators	31	28	29	30	42	1,530,616
Water and Liquid Waste Treatment Plant and System Operators	46	44	56	46	93	1,178,070
Petroleum Pump System Operators, Refinery Operators, and Gaugers	1	0	0	0	1	--
Plant and System Operators, All Other	7	0	3	10	15	--
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	61	51	54	54	79	--
Aircraft Cargo Handling Supervisors	0	1	0	0	1	--
Helpers, Laborers, and Material Movers, Hand, Supervisors/First Line Managers	3	4	6	4	6	--
Transportation and Material Moving Machine and Vehicle Operators, Supervisors/First Line Managers	1	2	2	2	2	--
Airline Pilots, Copilots, and Flight Engineers	15	16	15	14	20	--
Commercial Pilots	22	19	19	19	27	998,594
Airfield Operations Specialists	1	1	1	1	1	--
Bus Drivers, School	0	1	0	0	1	--
Driver/Sales Workers	0	1	1	1	1	--
Truck Drivers, Heavy and TractorTrailer	40	44	50	50	64	--
Truck Drivers, Light or Delivery Services	3	3	3	4	5	--
Taxi Drivers and Chauffeurs	18	23	14	21	31	--
Motor Vehicle Operators, All Other	4	5	5	10	15	178,297
Captains, Mates, and Pilots of Water Vessels	0	3	4	5	9	--
Ship Engineers	0	0	1	1	1	--
Service Station Attendants	12	6	10	5	23	41,783
Water Transportation Workers, All Other	0	0	4	1	4	--
Conveyor Operators and Tenders	11	12	12	10	15	--
Industrial Truck and Tractor Operators	1	2	2	2	3	--
Laborers and Freight, Stock, and Material Movers, Hand	96	172	160	96	348	1,330,944
Gas Compressor and Gas Pumping Station Operators	1	2	1	0	2	--
Pump Operators, Except Wellhead Pumpers	0	7	0	1	8	--
Refuse and Recyclable Material Collectors	13	15	12	10	27	263,214
Material Moving Workers, All Other.	21	20	18	20	25	--
Totals	3,502	3,760	4,036	3,736	6,509	43,925,026

- Indicates data where wage information was not available or cannot be presented due to confidentiality concerns.
- The above table depicts the total number of workers employed in this area for that occupation.
- Many small communities have a large percentage of workers working for one or two companies, for that reason we are unable to present the total wage data for those occupations.
- The table is sorted by the greatest number of total employees per occupation to least greatest.
- Total Wage data is given for the occupations with available data and a sufficient number of persons employed.

Appendix 2 – Desired Skills for New Hires

NW Inupiat Housing Authority	Carpentry, heavy equipment operators, plumbers, electricians
Village of Noatak	QuickBooks
US Fish & Wildlife	Computer skills, GIS (geographic information system), database management; leadership experience, undergrad degree; organizational skills, writing & speaking skills; educators – for environmental education and outreach; undergrad degrees in biology; ability to take notes and write them up, outline programs, write reports
AK Airlines	High school diploma, 18 yrs old, valid driver's license
Kotzebue Job Service (DOLWD)	Computer; technology; bachelors degree for managerial jobs; teachers – hard to fill locally; engineering (NANA).
City of Selawik	High school diploma, computers
Alaska Technical Center	With all positions, we look for a balance of industry experience, business experience, and education.
NWABSD	We need lots of tech people who have certification in networking and MSFT training. Educational aides have different levels, certified with college credits or the state mandated test.
Bering Air	Depends on job
Northwest Arctic Borough	All computer skills, some management
Alaska Commercial Co	Relevant experience and education
Native Village of Kotzebue	1) Computational skills, word processing, Excel, scanning, copying, uploading information. 2) Technological (IT, data analysis, etc) 3) Managerial: two years experience and budgetary oversight experience, 4) Educators: good with classroom management and respect for children and cultural knowledge and must encourage the use of the Iñupiaq language and lifestyle in the arctic. 6) Particular certification, need a GED and higher. We are heading into the era of expecting college degrees now. Want to see more computer software skills such as Microsoft word, office, etc. 7) Our housing department requires carpentry and plumbing skills and experience.
Red Dog Mine	For engineering, they need college degrees and certifications. We can train entry level/journeyman and geology techs.
Kivalina City Council	N/A because they are hired by secret ballot, not by qualifications.
KIC Construction	Some computer, tech, managerial; OSHA certified
Crowley Petroleum Distribution	Union – must meet specifications; HAZMAT and HAZWOPER training; hazardous materials driver's licenses
OTZ Telephone Co	Technology, managerial, engineering, computer skills
UIC/Harpoon Construction, Rainproof Roofing, UIC Construction, Rockford	Accounting and computer experience, varying degrees depending on position, not a lot of shareholders have managerial experience, engineering

NANA Regional Corporation Inc.	Each position has its own requirements, but experience more than education.
Kotzebue Electric Association	Has own training programs for power plant operators which is accepted by UA
Kivalina IRA Council	Drug/alcohol free, good attendance, history and background of position.
City of Noorvik	HS diploma, punctuality for all.
Red Dog Mine	Engineering, heavy equipment maintenance degrees and certifications, CDL.
Kiana Traditional Council	Need grant managers to take care of grants and compliance.
City of Kotzebue	EMT, CDLs, water plant
NANA Lynden	Mechanics (diesel mechanics school), CDL drivers; those with MSHA (mine safety) course,
Kikiktagruk Inupiat Corp.	Management candidates need college degrees and experience. Everyone needs a high school diploma or GED.
Buckland City	Depends on job

Appendix 3 – Most Important Skills for Work at Our Organization

Alaska Airlines	High school diploma, valid drivers license
City of Selawik	Office skills, computers
Alaska Technical Center	High school diploma, office skills
NWABSD	Accounting (for administrative jobs)
Bering Air	Aircraft mechanic
NW Iñupiat Housing Authority	Hands on training: laborers, carpenters, plumbers; get certified
Village of Noatak	HS diploma or higher. Heavy equipment operator, regular and commercial driver's licenses
US Fish & Wildlife Service	Presentation and writing, media and communications (how to use social marketing), maintenance & carpentry classes, computer skills, science classes
Northwest Arctic Borough	Job readiness
Alaska Commercial Company	Business classes, math classes, marketing, meat cutting program (employees must work w/ a journeyman meatcutter for 2 years), sanitation training
Native Village of Kotzebue	Computers and writing, grant writing, work ethic and experience. Learn the Inupiaq language and culture along side the western courses. Business and office management, strategic planning, grant writing, online business. Carpentry, plumbing, electrician apprenticeships.
Kivalina City Council	Legal training, some accounting, report writing
KIC Construction	Vocational – boiler techs, electricians, plumbers, carpenters
Crowley Petroleum Distribution	HAZMAT training, CDL licenses (State of AK has eliminated the provisional licenses, so now all must do training in Anchorage).
OTZ Telephone Company	Good attitude, willingness to work hard
Kikiktagruk Iñupiat Corporation	Communication skills, oral and written, customer service, office occupations, business writing and math, also electrical and plumbing
Buckland City	Math, office occupations, reading, more council training

Ukpeagvik Iñupiat Corporation/ Harpoon Construction	Updated degrees in IT, accounting, real estate, financial management, engineering, computers
NANA Regional Corporation	College track education, math all 4 years. Also computer skills
Kiana Traditional Council	High school diploma
City of Kotzebue	Office skills, English, Driver's license
Kivalina IRA Council	Accounting and office skills
City of Noorvik	Accounting, heavy equipment, maintenance.
Red Dog Mine	Math, reading, communication. High level technical skills. Science and engineering for technical jobs. Business admin is not necessary. Millwright, heavy equipment, electrical and maintenance. Electrical, instrumentation, computer skills, some clerical

Appendix 4 – Ideas for Improving Workforce Training in the NWAB

- Classes on how to be prepared for a job, interviewing, resume writing, visit other campuses & Anchorage to be exposed to different environment than Kotzebue; those who attended ATC for CDL license seem more prepared & confident
- High school diploma or GED is basic; HAZWOPER training; Off-road CDL (already offers on-road CDL)
- School district could offer business education. Applicants need office skills, keyboarding, Excel. Need to be skilled in things they are really going to do. Health is an issue so classes in that as well, nursing. Clerical. Can ATC develop phone answering skills? Chukchi Campus should focus on technical skills, not college diploma. Paraprofessionals, quasi-teachers, how to help students, gain credits too.
- High school work on job readiness
- Internet research
- High school is too focused on college, not enough on work. The magnet school should be a big help with this — natural resources, teaching, mining and health occupations. Chukchi could add some courses to support the teaching profession, opportunity for staff development. Better prepared for teaching locally.
- Need vocational trade school for carpenters, plumbers & electricians; encourage school district, UA & ATC to work w/partners in region to meet needs of high school graduates
- More funding for existing programs
- High school could do presentation & writing classes, media & communications (how to use social marketing); Chukchi & ATC add writing, maintenance & carpentry classes, computer skills, science classes
- Bring technical training programs to our high school students before they graduate from high school. Need more art and Inupiaq language in the classrooms. Public School needs to stop teaching only to test standards. Have funds set aside to hire high school and college bound youth during the summer months. Offer grant writing in high school. Require high schoolers to take it and work on a project that would benefit their community. (example- wind energy, solar, water purification, radio, newspaper, etc.). Chukchi Campus could give college credit to high school students who take college courses. Hold summer sessions locally such as Upward Bound or science and music and arts camp. ATC could take high school students at the junior level. Expand computer technology into art and media.
- High school students need to have more exposure (to work) than they currently get. Don't know about Chukchi Campus. ATC needs more resources. Their shop is way too small, and they need solid, capable instructors.
- Legal education for issues that people are likely to encounter.

- It's very important for the school district to teach responsibility & business ethics. I didn't know the program at Chukchi existed. ATC should emphasize attendance – getting people to show up to work; value system.
- All do a good job
- High school should spend more time preparing students for life out of high school, career awareness. Chukchi Campus doesn't prepare people for work, soft skills. More outreach to make people aware of (work and training) opportunities.
- High school do more driver education and office skills
- CDL training in Kotzebue; Mechanics training is now only in Whittier.
- The high school, Chukchi Campus and ATC all work with us effectively.
- Math, reading, university advertise what they do
- High school - more job fairs. High school and Chukchi Campus –could partner with Tech/Cominco at Red Dog for more job shadowing for students to look around
- ATC was very helpful for QuickBooks training, would like to see more financial training.
- The high school could use a program for teachers to embrace the community and get involved in the students' lives. Teacher turnover is too high, better orientation of teachers and the community needs to be more inviting. Chukchi Campus is trying- don't know if their outreach to rural communities for distance delivery is very good. ATC is a huge asset if 1) More industrial, mechanical/millwright, 2) heavy equipment, 3) electrical maintenance, 4) workforce readiness. We have hired lots of their graduates but the retention is low; they leave.

Appendix 5 – Ideas for New Training

- Hands on training: laborers, carpenters, plumbers; get certified
- Database management; geographic programs; remote database collection; math and science – how to interpret information
- Character related – responsibilities for having a job; confidence building
- MSHA Certification; Hazardous materials training, Off road CDL
- GED training
- Two training areas-1) attendance/punctuality, 2) attitude.
- The magnet school should help. We also need computer/technical skills, networking, computer repair, installation
- Aircraft mechanic
- SuperLearning@ Tools program for all students, so they learn to be in charge of their own education and to be self-motivating and confident of their skills. Use the informal Inupiaq values and methods of learning that our culture has used for thousands of years
- Business background for local leaders
- Vocational such as boiler techs, electricians, plumbers, carpenters
- First aid
- Education in IT, accounting, real estate, directors, controllers, engineering, computers
- Soft skill training. Connection with work ethic, calling in, showing up for work
- Safety training
- GED, driver's license, CDL
- Driver's license, VPSO or police, more interest in law enforcement
- Computer training with MSFT is good, but they also need more basic computer training.
- Computer skills, QuickBooks

Northwest Magnet School Phase II

Brief Description: The completed project provides for a regional magnet technical school for grades 11-14 in Kotzebue. Partial funding of $6 million was received last year. The current request of $8 million completes two new shops, three new classrooms and upgrades and renovates the Alaska Technical Center to support the new programs and correct structural and code deficiencies of the existing building.

Project type: Remodel, Reconstruction and Upgrade

Total Project Cost: $14 million

Funding Secured: $6 million

FY 2012 State Request: $8 million

Project Deficit: $8 mill

If funded will you be requesting again: No

Funding history: The legislature approved a $12 million appropriation last legislative session. This amount was reduced to $6 million by Governor's veto.

Project description: The District is moving forward with the available funding. A design team was selected in August. A facilities condition survey was completed recommending code and condition upgrades to the existing building. Current and future space needs were evaluated in accordance with the educational program for the magnet school. Schematic design was completed for construction of new shop and classroom space and renovation and upgrade and reconstruction of the existing building.

After careful evaluation of the data and the available funding, the scope of work was divided into two phases. Phase I is construction of the shell of the new additions to the ATC and Phase II is the completion of shop and classroom addition and renovation of the existing ATC facility. Phase I will provide two new shops- one to support construction trade pathway and the other resource development pathway to include welding instruction and three new classrooms. The new structure can be started with available funds. However, there is not adequate funding to complete the shops and classrooms without the additional requested $ 8 million.

The District is requesting $8 million for Phase II of the Northwest Magnet School. The existing 27,600 sq. ft. building will be renovated and upgraded. The building is 30 years old, the severe arctic climate has taken its toll on the building and most of the basic systems have reached the end of their useful life and are due for replacement. The upgrades will convert old undersized dysfunctional shop space into instructional space for the construction trade and resource development programs. Classroom space will be added and remodeled to support adult basic education, health occupations and office occupation pathways. The deteriorated building envelop will be restored with new roofing, exterior siding, and thermal pane windows. The old worn-out boilers will be replaced with new energy efficient ones. Code

deficiencies will be corrected, including a new hood for the kitchen. Storage areas will be consolidated freeing more space for instruction. Library will be enclosed to eliminate sound distraction. Technology and distance delivery capabilities will be added to the instructional spaces. The total cost of Phase II is estimated at $8 million.

With these upgrades the ATC will be able to support technical training programs for both adult and high school students in addition to evening classes for the community. The ATC will be restored to like new condition, ready to face another 30 years of service beside the Chukchi Sea.

Time Line

Phase 1 will be out to bid by the end of February 2011, with construction starting as soon as possible thereafter.

Northwest Magnet School Dormitory

Brief Description: The completed project is the construction of a 100 bed dormitory required to support the Regional Magnet Technical School for grades 11 to 14 in Kotzebue. The current capital request is for $17 million.

Project type: New Construction

Total Project Cost: $17 million

Funding Secured: $1 million in land

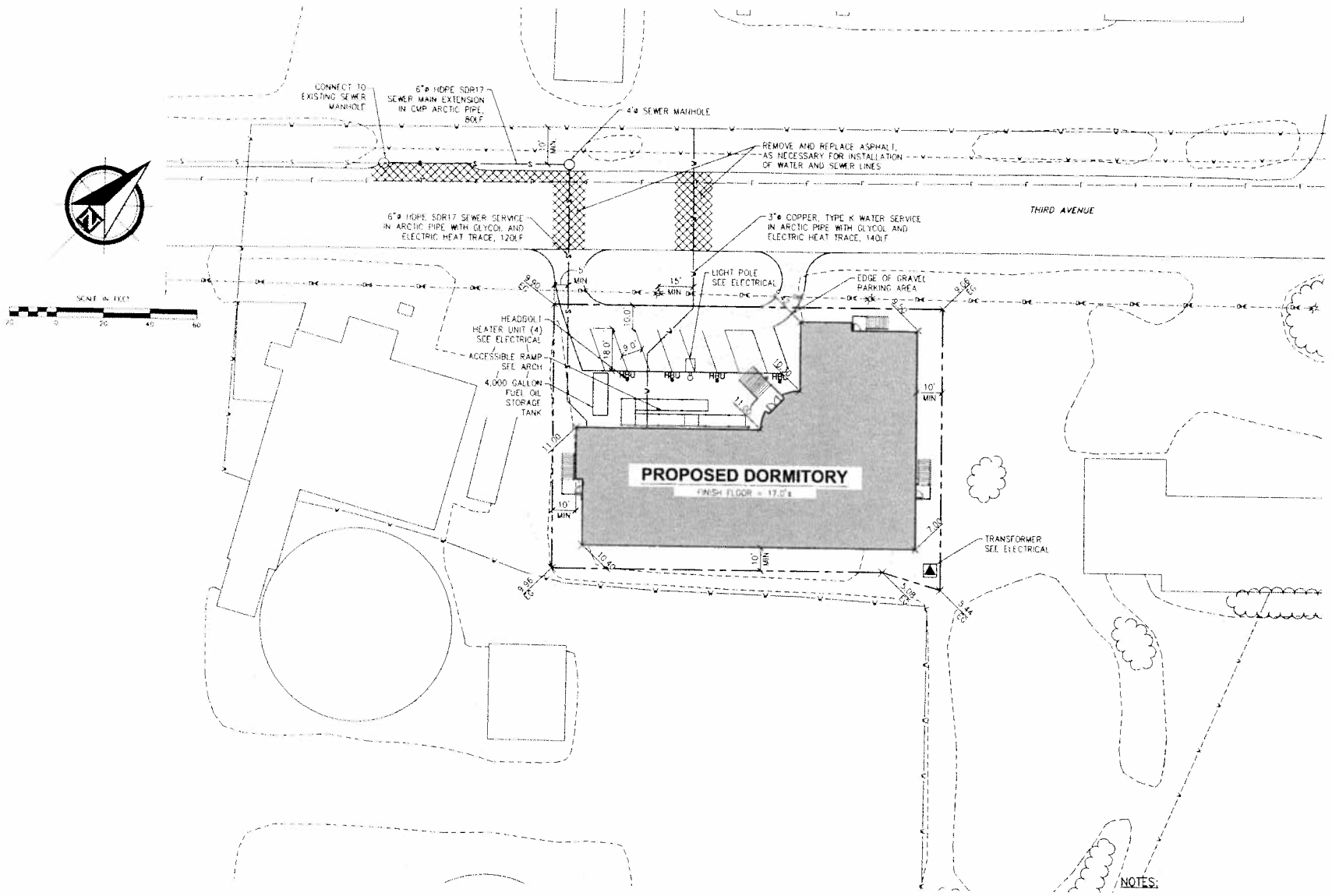
FY 2012 State Request: $17 million

Project Deficit: $17 million

If funded will you be requesting again: No

Funding history: The legislature has approved funds for the Magnet School renovation and remodeling.

Project description: The Northwest Arctic Borough School District has developed a program plan of service and has obtained industry support to establish a residential magnet technical school.



NOTES:

1. NO SURVEY WAS PERFORMED. LOCATIONS OF BUILDINGS, UTILITIES, PADS, AND OTHER SITE FEATURES ARE APPROXIMATE. ELEVATIONS SHOWN ARE APPROXIMATE.

SCHEMATIC DESIGN

Burkhart Croft ARCHITECTS LLC
880 N Street Suite 302 | Anchorage Alaska 99501
T: 907.929.9334 | www.burkhart-croft.com

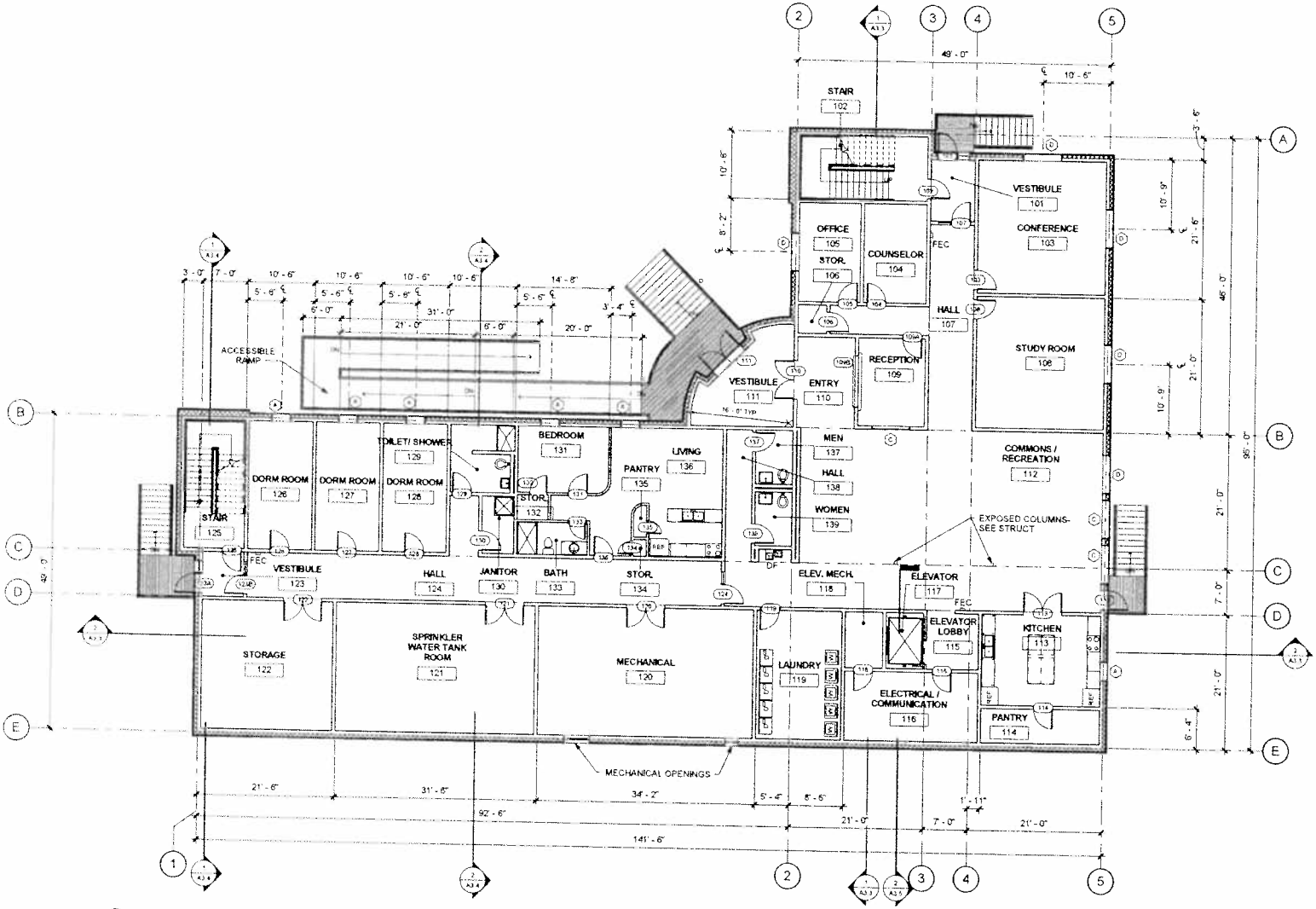
PDE ENGINEERS, INC.
1506 WEST 36th AVENUE
ANCHORAGE, AK. 99503
PH: 907.561.1011
WWW.PDEENGINEERS.COM

NORTHWEST ARCTIC BOROUGH SCHOOL DISTRICT

NORTHWEST MAGNET SCHOOL DORMITORY

KOTZEBUE, ALASKA

DATE:	12.23.10
DRAWN:	BA
CHECKED:	DTK
PROJECT:	1004
DRAWING TITLE:	SITE PLAN
REVISIONS:	
PND JOB#:	101078
SHEET NO:	C2.0



1 FIRST FLOOR PLAN
1/8" = 1'-0"

SCHEMATIC DESIGN

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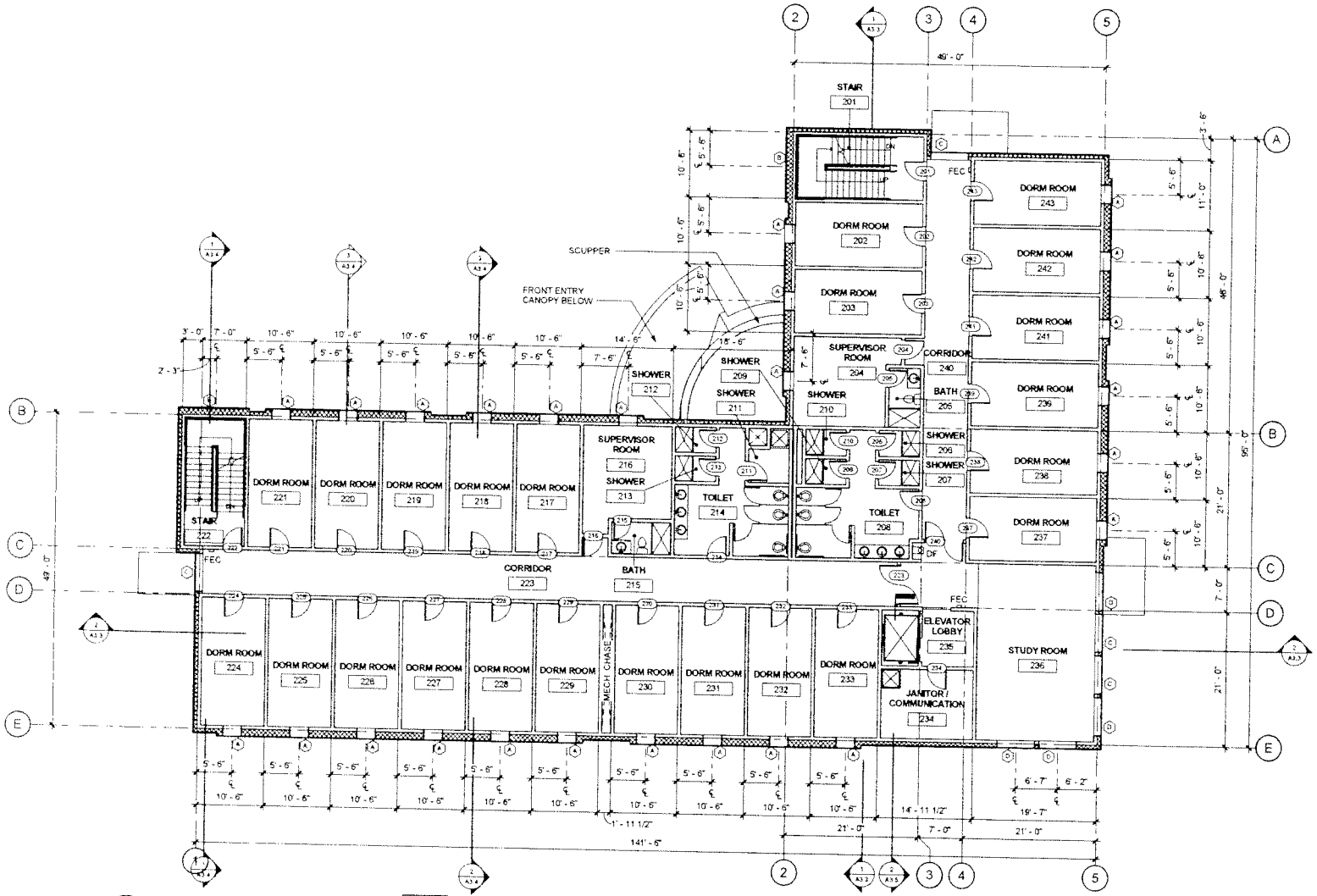
NORTHWEST ARCTIC BOROUGH SCHOOL DISTRICT

NORTHWEST MAGNET SCHOOL DORMITORY

KOTZEBUE, ALASKA

DATE: 12.23.10
DRAWN: BDN
CHECKED: RAP
PROJECT: 1004.01
DRAWING TITLE: FIRST FLOOR PLAN
REVISIONS:
SHEET NO: A2.1



1 SECOND FLOOR PLAN
1/8" = 1'-0"

SCHEMATIC DESIGN

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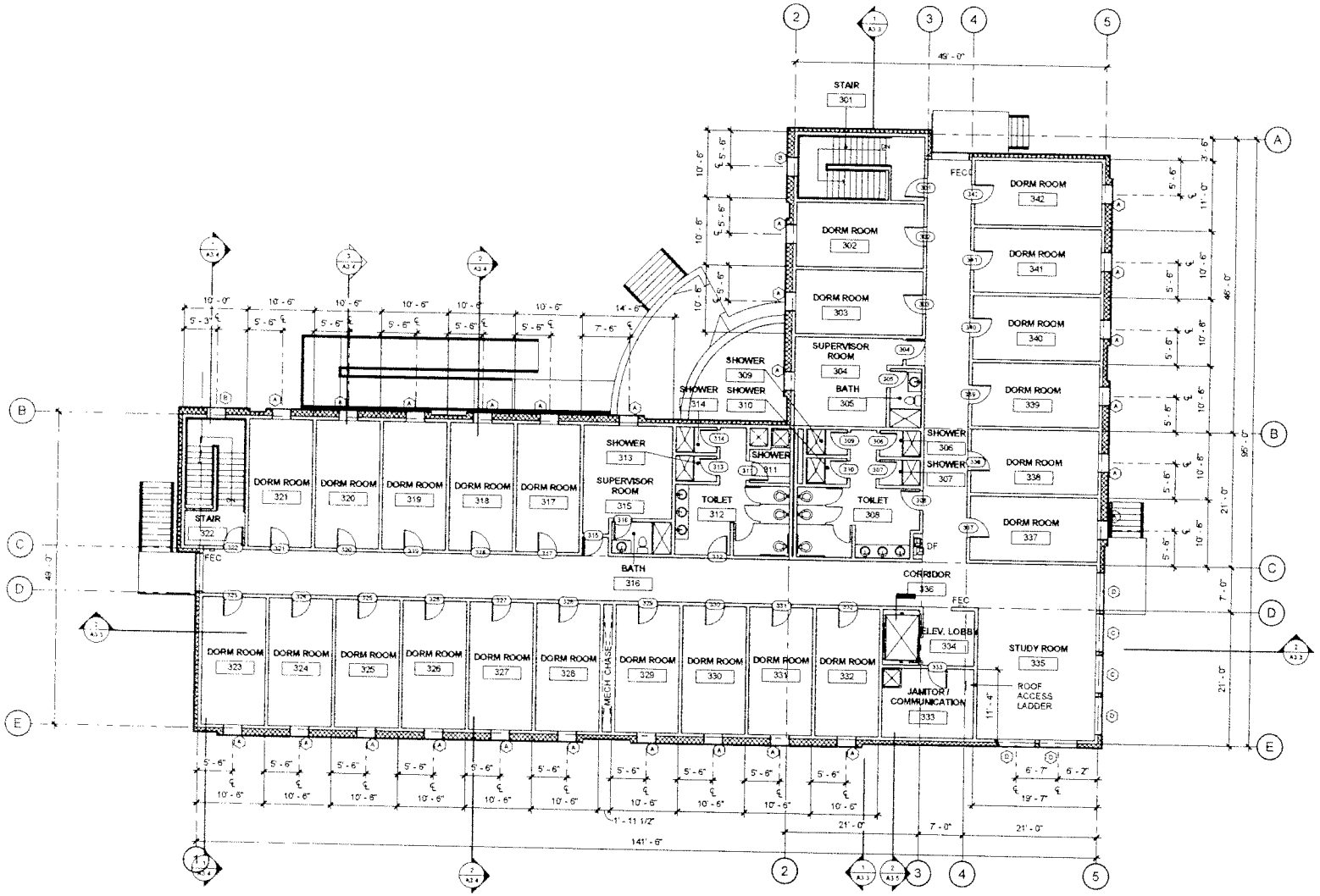
NORTHWEST ARCTIC BOROUGH SCHOOL DISTRICT
NORTHWEST MAGNET SCHOOL DORMITORY
KOTZEBUE, ALASKA

DATE	12.23.10
DRAWN	BDN
CHECKED	RAP
PROJECT	1004.01
DRAWING TITLE	SECOND FLOOR PLAN
REVISIONS	
SHEET NO	A2.2



1 THIRD FLOOR PLAN
1/8" = 1'-0"

SCHEMATIC DESIGN

Burkhart Craft ARCHITECTS LLC
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T: 907.929.9334 | www.burkhart-craft.com

NORTHWEST ARCTIC BOROUGH SCHOOL DISTRICT
NORTHWEST MAGNET SCHOOL DORMITORY
KOTZEBUE, ALASKA

DATE	12.23.10
DRAWN	BDN
CHECKED	RAP
PROJECT	1004.01
DRAWING TITLE	THIRD FLOOR PLAN
REVISIONS	
SHEET NO	A2.3

1 NORTHWEST MAGNET SCHOOL / ALASKA TECHNICAL CENTER SITE PLAN

1" = 40'

Burkhart Croft
ARCHITECTS LLC
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NORTHWEST ARCTIC BOROUGH SCHOOL DISTRICT

NORTHWEST MAGNET SCHOOL
RENOVATION & ADDITION

KOTZEBUE, ALASKA

DATE:	01.27.11
DRAWN:	RAP
CHECKED:	JBC
PROJECT:	1004

DRAWING TITLE:
SITE PLAN

REVISIONS:

SHEET NO:
P0.0

PHASE I: NEW CONSTRUCTION SHOP BUILDING

AREA = 6,999 SQUARE FEET

PHASE II: RENOVATION OF EXISTING BUILDING

AREA = 27,606 SQUARE FEET

EXISTING WOOD SHOP CONVERTED TO CLASSROOM SPACE

EXISTING ENTRY CANOPY, STAIRS, AND FOUNDATIONS TO BE REPLACED

NEW METAL SIDING AND REFINISHED WOOD SIDING THROUGHOUT

WINDOW REPLACEMENT THROUGHOUT

NEW EXTERIOR DOORS THROUGHOUT

NEW ACCESS CORRIDOR TO SHOP BUILDING

EXISTING INDUSTRIAL SHOP CONVERTED TO CLASSROOM SPACE

SHOP STORAGE 177
RESOURCE DEVELOPMENT SHOP 176
STAIR 177
OFFICE 178
TOILET 181
BOILER ROOM 180
OFFICE 179
JAN. 182
CORRIDOR 175
CONSTRUCTION TRADES SHOP 183
SHOP STORAGE 184
DN
RESOURCE DEVELOPMENT CLASSROOM 112
SHOP VESTIBULE 113
EMERGENCY GENERATOR PUMP ROOM 114
MENS' TOILET ROOM 103
CORRIDOR 101
WOMENS' TOILET ROOM 102
LOBBY 100
STORAGE 118
STORAGE 116
CONSTRUCTION TRADES CLASSROOM 110
VESTIBULE 109
CUSTODIAL OFFICE 121
MAINTENANCE OFFICE 122
DRY FOOD STORAGE 133
DRY FOOD STORAGE 135
FOOD SERVICE MANAGER'S OFFICE 136
SCULLERY 137
SHIPPING & RECEIVING 123
CORRIDOR 132
CAFETERIA LINE 139
TOILET 124
STAIR 111
MAINTENANCE SHOP 120
WALK-IN FREEZER 131B
FOOD PREPARATION 130
FOOD PREPARATION / SERVING 138
WALK-IN REFRIGERATOR 131A
CAFETERIA ENTRY 143
CORRIDOR 104
CORRIDOR 105
DINING AREA 140
ELEV. MACH. ROOM 171
LIBRARY 170
A-V EQUIP. STORAGE ROOM 172
CHAIR STORAGE 142
STUDENT STORE 141
CORRIDOR 106
STAIR 173
CLOSED STACK ROOM 174
ABE / GED CLASSROOM 150
COMM. STORAGE ROOM 152
RESOURCE 125
CORRIDOR 154
BUS./HUM. SER. FACULTY OFFICE 160
ABE / GED TESTING 161
VESTIBULE 108
STAIR 107

NEW CONSTRUCTION
- THERMAL PILES
- CONCRETE FLOORS
- STEEL FRAMEWORK
- STRUCTURAL INSULATED PANEL SYSTEM (R-34)
- SINGLE PLY MEMBRANE ROOFING (R-50)

PROGRAM LEGEND

- ADULT BASIC EDUCATION
- CONSTRUCTION TRADES
- RESOURCE DEVELOPMENT
- SUPPORT SPACES

1 FIRST FLOOR PLAN - PROGRAM
3/32" = 1'-0"

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NORTHWEST ARCTIC BOROUGH SCHOOL DISTRICT
NORTHWEST MAGNET SCHOOL RENOVATION & ADDITION
KOTZEBUE, ALASKA

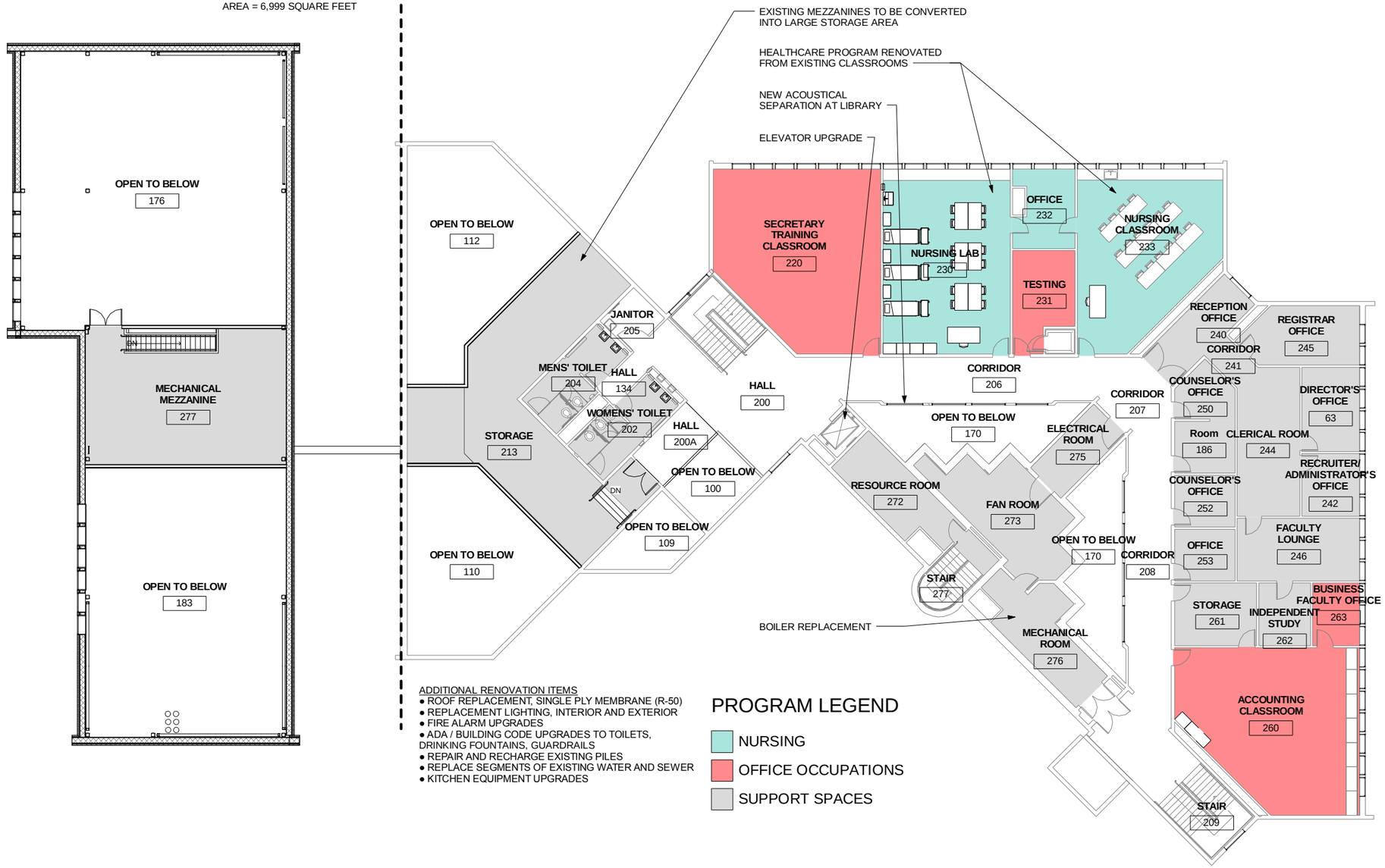
DATE: 01.27.11
DRAWN: RAP
CHECKED: JBC
PROJECT: 1004
DRAWING TITLE: PROGRAM PLAN FIRST FLOOR
REVISIONS:
SHEET NO: **P0.1**

PHASE I: NEW CONSTRUCTION SHOP BUILDING

AREA = 6,999 SQUARE FEET

PHASE II: RENOVATION OF EXISTING BUILDING

AREA = 27,606 SQUARE FEET



ADDITIONAL RENOVATION ITEMS
- ROOF REPLACEMENT, SINGLE PLY MEMBRANE (R-50)
- REPLACEMENT LIGHTING, INTERIOR AND EXTERIOR
- FIRE ALARM UPGRADES
- ADA / BUILDING CODE UPGRADES TO TOILETS, DRINKING FOUNTAINS, GUARDRAILS
- REPAIR AND RECHARGE EXISTING PILES
- REPLACE SEGMENTS OF EXISTING WATER AND SEWER
- KITCHEN EQUIPMENT UPGRADES

PROGRAM LEGEND
- NURSING
- OFFICE OCCUPATIONS
- SUPPORT SPACES

1 SECOND FLOOR PLAN - PROGRAM
3/32" = 1'-0"

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NORTHWEST ARCTIC BOROUGH SCHOOL DISTRICT
NORTHWEST MAGNET SCHOOL RENOVATION & ADDITION
KOTZEBUE, ALASKA

DATE: 01.27.11
DRAWN: RAP
CHECKED: JBC
PROJECT: 1004
DRAWING TITLE: PROGRAM PLAN SECOND FLOOR
REVISIONS:
SHEET NO: **P0.2**

NORTHWEST MAGNET SCHOOL				Burkhart Croft ARCHITECTS	
ALASKA TECHNICAL CENTER					
RENOVATION AND ADDITION					
					BCA #1004
Work Item Index for Renovation of Existing ATC Facilities					**1/11/2011**
		Priority	**Deficiency Category**	**Construction Phase**	**Energy**
		1 - High	**1 -Life Safety/ Code**	**1 - Addition**	**Efficiency**
		2 - Medium	**2 - Accessibility**	**2 - Renovations**	**Improvement**
		3 - Low	**3 - Renewal**	**3 - Maintenance**	
		4 - Not Needed	**4 - Comfort**		
Discipline	**Repair or Replacement Item**		**5 - Program Mod**		
Architectural Work Items					
A-01	**Windows:** Replace Existing Windows, trim and flashing. Repair moisture damaged drywall around various openings. Replace damaged plastic laminate window sill and hardwood apron in room 260.	1	3	2	Yes
A-02	**Roof:** Replace Existing Roof with system designed for 1:12 pitch. Replace all vent and exhaust piping and parapet finish materials. Install new 12" to 16" overhangs at eaves. Provide roof access hatch.	1	3	2	Yes (insulation only)
A-03	**Exterior Doors:** Replace Existing Exterior Doors, threshold sills, trim and flashing	1	3	2	Yes
A-04	**Exterior Guardrails and Handrails**: Provide new guardrails at loading dock. Add balusters or mesh to reduce opening size at other exterior guardrails. Repaint main entry guardrail.	1	1	2	
A-05	**Loading Dock**: Sand and seal loading dock decking	3	3	3	
A-06	**North Entry Stair**: Replace north exterior porch, canopy, stair and pilings	1	1	2	
A-06	**Siding:** Replace metal siding at existing locations	1	3	2	
A-07	**Siding:** Repaint T1-11 Building siding	2	3	2	

		Priority	Deficiency Category	Construction Phase	Energy
		1 - High	1 -Life Safety/ Code	1 - Addition	Efficiency
		2 - Medium	2 - Accessibility	2 - Renovations	Improvement
		3 - Low	3 - Renewal	3 - Maintenance	
		4 - Not Needed	4 - Comfort		
Discipline	**Repair or Replacement Item**		5 - Program Mod		
A-08	**Other Exterior Finishes:** Repaint exposed perimeter glu-lam beams	1	3	3	
A-09	**Acoustical Separation at Library**: Install new interior window glazings between second floor corridor and upper level, library.	2	4	2	
A-10	**Access to Shop Addition:** Demo faculty offices 116 & 118 to make room for new corridor	1	5	2	
A-11	**Conversion of Existing Shops to Classrooms:** Remove, metal stairs, drinking fountains, eye wash, emergency shower and utility sink in rooms 110 and 112.	1	5	2	
A-12	**New Second Floor Storage**: Remove walls separating lofts 211, 213 from the dust collection room. Repair water damaged areas. Convert to storage. Remove walls and flooring in womens lounge 203, convert to access ramp.	1	5	2	
A-13	**Elevator:** Elevator inspection certificate has expired. Elevator will require several upgrades for code compliance	1	1	2	
A-14	**ADA Fixtures**: Replace drinking fountains in the hallways with accessible units. Replace sinks and casework in group toilets with accessible sink units.	3	2	2	

		Priority	Deficiency Category	Construction Phase	Energy
		1 - High	1 -Life Safety/ Code	1 - Addition	Efficiency
		2 - Medium	2 - Accessibility	2 - Renovations	Improvement
		3 - Low	3 - Renewal	3 - Maintenance	
		4 - Not Needed	4 - Comfort		
Discipline	**Repair or Replacement Item**		5 - Program Mod		
A-15	**Renovation of Nursing Lab and Classroom**: Install hand wash sink in Nursing 230. Remove carpet in Nursing Lab 230 and install sheet vinyl. Remove sheet vinyl in Nursing Classroom 220 and install carpet. Remove some casework and replace some casework.	1	5	2	
A-16	**Ceilings:** Replace stained or damaged lay-in ceiling panels, various locations	3	3	3	
A-17	**Wall Finish**: Install non-porous wall treatment in Toilet 124.	2	1	2	
A-18	**Room 152:** Complete renovation work, room 152, including new flooring and repair of walls where demolition is incomplete	3	3	2	
A-19	**Miscellaneous Repair:** Repair hairline cracks or water damage in drywall in walls and ceilings, various locations. Replace and patch missing drywall in Vestibule 108. Repair cracks in concrete floors, existing shop rooms 110 and 112. Reattach loose, bubbling wall carpet at Stairs 107, 111, 209. Repaint walls, toilet room 124. Replace missing rubber base in room 125 and dining 140. Provide sealant in P-lam joint separation in room 150. Provide threshold strip at door in room 253. Install interior door hardware at room 125. Clean wall and floor carpets throughout the building. Repaint walls in room 163	3	2	3	
Civil Work Items					

		Priority	Deficiency Category	Construction Phase	Energy
		1 - High	1 -Life Safety/ Code	1 - Addition	Efficiency
		2 - Medium	2 - Accessibility	2 - Renovations	Improvement
		3 - Low	3 - Renewal	3 - Maintenance	
		4 - Not Needed	4 - Comfort		
Discipline	**Repair or Replacement Item**		5 - Program Mod		
C-01	**Sewer:** Replace Existing Sewer Service	1	3	1	
C-02	**Water:** Replace Existing Water Service	2	3	1	
C-03	**Fuel Oil**: Inspect existing fuel oil service for corrosion	2	3	3	
C-04	**Parking Lot:** Adjust parking lot grading to improve drainage	4	5	2	
C-05	**Existing Accessory Structures**: Demolish two existing structures to make room for shop addition	1	5	1	
Structural Work Items					
S-01	**Foundation piles:** Excavate, clean & coat	1	3	2	
S-02	**North Entry Stair:** Replace north exterior stair piles (**See A-06 above**)	--	--	--	
S-03	**Steel pile caps and beam hangars: C**lean & coat	1	3	2	
S-04	**Damaged Floor Framing**: Inspect, repair or replace damaged floor framing near drain locations	2	3	2	
Mechanical Work Items					
M-01	**Boilers:** Replace boilers/boiler controls.	2	3	2	Yes
M-02	**Hyronic Pumps**: Replace Hydronic Pumps	2	3	2	Yes
M-03	**Ventilation:** Replace ventilation equip. in exist. wood/metal shop	1	5	2	
M-04	**Dust Collector**: Demolish Existing Dust Collector	1	1	2	
M-05	**Kitchen Hood**: Replace existing kitchen exhaust hood	1	1	2	
M-06	**Sewer**: Replace existing arctic waste piping below bldg. (**see C-01 above**)	--	--	--	

		Priority	Deficiency Category	Construction Phase	Energy
		1 - High	1 -Life Safety/ Code	1 - Addition	Efficiency
		2 - Medium	2 - Accessibility	2 - Renovations	Improvement
		3 - Low	3 - Renewal	3 - Maintenance	
		4 - Not Needed	4 - Comfort		
Discipline	**Repair or Replacement Item**		5 - Program Mod		
M-07	**Kitchen Grease Trap**: Provide grease trap for kitchen.	1	1	2	
M-08	**Kitchen Water Heater**: Provide 140-F water to kitchen	1	1	2	
M-09	**ADA Fixtures**: Provide ADA accessible fixtures in restrooms and hallways **(See A-14 above)**	--	--	--	
M-10	**Fuel Oil Day Tanks**: Replace existing fuel oil day tanks	1	1	2	
M-11	**Controls:** Replace pneumatic controls w/ DDC	3	4	2	Yes
M-12	**Seismic Bracing:** Provide seismic bracing at fire pump/riser	1	1	2	
Electrical Work Items					
E-01	**Electrical Service Distribution**: Upgrade existing electrical service distribution equipment to accommodate new addition. (800A breaker for existing buidling and 600A breaker for the new addition)	1	3	1	
E-02	**Fire Pump Disconnects**: Replace the 100A fire pump disconnects (normal and generator power) with 400A & correct labeling per NEC.	1	1	2	
E-03	**Emergency Transfer Switch:** Separate all standby loads from the emergency transfer switch.	1	1	2	
E-04	**Panelboards:** Provide routine maintenance on all existing distribution and branch circuit panelboards.	2	3	2	
E-05	**Panel Circuit Directories**: Trace existing circuits and update panel circuit directories	2	3	2	

		Priority	Deficiency Category	Construction Phase	Energy
		1 - High	1 -Life Safety/ Code	1 - Addition	Efficiency
		2 - Medium	2 - Accessibility	2 - Renovations	Improvement
		3 - Low	3 - Renewal	3 - Maintenance	
		4 - Not Needed	4 - Comfort		
Discipline	**Repair or Replacement Item**		5 - Program Mod		
E-06	**Fire Pump Feed:** Replace flexible metal conduit feed to fire pump with liquidtight flex.	2	3	2	
E-07	**Receptacle:** Replace duplex receptacle in elevator room with GFCI type.	2	1	3	
E-08	**Light Switches and Receptacles:** Replace all existing light switches and receptacles throughout the facility with new since existing devices are nearing end of useful life.	2	3	2	
E-09	**Motor Starters:** Relocate existing motor starters to allow NEC clearance.	2	1	2	
E-10	**Solar Array:** Relocate solar array to new addition or alternate location.	2	5	2	
E-11	**Interior Lighting Replacement:** Replace all existing T12 and Mercury Vapor (MV) lamps and fixtures throughout the facility to more energy efficient T5, T8 or LED type.	2	3	2	Yes
E-12	**Exterior Lighting Replacement**: Replace all exterior lights with new LED type.	2	3	2	Yes
E-13	**Emergency Lighting**: Add emergency lighting throughout the paths of egress to provide minimum code-required emergency lighting.	1	1	2	
E-14	**Exit Sign Replacement:** Replace the self-powered exit signs with LED type.	1	1	2	
E-15	**Occupancy Sensors**: Provide occupancy sensors in select locations throughout the facility toautomatically turn lights off when not in use.	2	3	2	Yes
E-16	**Wireless Network**: Provide a new wireless network with POE switches.	1	4	2	

		Priority	Deficiency Category	Construction Phase	Energy
		1 - High	1 -Life Safety/ Code	1 - Addition	Efficiency
		2 - Medium	2 - Accessibility	2 - Renovations	Improvement
		3 - Low	3 - Renewal	3 - Maintenance	
		4 - Not Needed	4 - Comfort		
Discipline	**Repair or Replacement Item**		5 - Program Mod		
E-17	**Fire Alarm System**: Upgrade existing fire alarm system to new addressable system. New FACP to be installed in new addition under Phase 1, remaining building to be brought up to code under Phase 2.	1	1	2	
E-18	**Security**: Provide new security system.	3	4	2	
E-19	**TV Headend:** Provide new TV headend and dedicated RG-6 cables to each classroom.	2	4	2	
E-20	**Intercom/Master Clock:** Provide new intercom and master clock system	2	4	2	